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NORTHUMBERLAND COUNTY COUNCIL.

REPORT OF THE COUNTY MEDICAL OFFICER OF HEALTH
FOR THE YEAR ENDED 31st DECEMBER, 1929.

TO THE CHAIRMAN AND MEMBERS OF THE COUNTY COUNCIL
OF NORTHUMBERLAND.

MR. CHAIRMAN, MY LORDS, LADIES AND GENTLEMEN,

I beg to present my annual report for the year 1929. It is an "ordinary" report as defined by the Ministry of Health and is of a less exhaustive character than the full Survey Report required for 1925. No digest of the sanitary circumstances of county districts has been made but the vital and mortality statistics applicable to these areas have been summarised and the rates calculated.

Administration.—The official, technical and administrative staff under the direction of the County Medical Officer consists of :—

Assistant County Medical Officer and County Bacteriologist who is also Medical Officer of Health of the Newburn Urban District.

The Medical Superintendent of the Council's Sanatorium at Wooley.

Assistant Medical Superintendent of the Council's Sanatorium at Wooley.

The Matron of the Council's Sanatorium at Wooley.

The County Tuberculosis Officer (clinical).

5 Assistant County Medical Officers.

2 School Dentists.

County Sanitary Inspector.

Lady Superintendent of Health Visitors.

There were also, during 1929, 32 Health Visitors, one Orthopaedic Sister, and, at the central office, a clerical staff of thirteen.

Orthopaedic Treatment.—During the year, a commencement was made with the organised treatment of Orthopaedic defects, a scheme for the treatment of children of school age, and of children under school age, having been brought into operation. Sir Robert Jones, of Liverpool, on November 30th, 1929, at the Moothall, Newcastle, gave a very interesting address upon the treatment of Orthopaedic defects, both from the administrative and clinical standpoints, with a view of stimulating interest in this very important work.

Vital and Mortality Statistics.—The variations in the principal county rates during recent years are indicated in the following table. The corresponding rates for England and Wales are given for comparison :—

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Live Birth rate (per 1,000 living) Administrative county	28·3	25·5	22·5	22·5	22·2	20·8	20·02	17·90	18·37	16·79
England and Wales ...	25·4	22·4	20·6	19·7	18·8	18·3	17·8	16·6	16·7	16·3
General death rate (per 1,000 living)										
Administrative county	12·9	12·4	12·7	11·3	12·1	11·6	11·37	11·53	11·39	12·22
England and Wales ...	12·4	12·1	12·9	11·6	12·2	12·2	11·6	12·3	11·7	13·4
Infant mortality rate (per 1,000 births)										
Administrative county	90	95	87	76	83	82	77	77	67	81
England and Wales ...	80	83	77	69	75	75	70	70	65	74

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Zymotic death rate (per 1,000 living)										
Administrative county	0.76	1.04	0.41	0.74	0.40	0.67	0.53	0.27	0.28	0.65
<i>England and Wales</i> ...	0.71	0.70	0.60	0.50	0.45	0.54	0.44	0.38	0.40	0.47
Death rate from Respiratory Tuberculosis (per 1,000 living)										
Administrative county	0.92	0.87	0.88	0.85	0.82	0.78	0.73	0.81	0.68	0.74
<i>England and Wales</i> ...	0.86	0.88	0.88	0.84	0.84	0.83	0.77	0.79	0.76	0.79

The slight increase in the birth rate which was recorded last year was not maintained during the year under review, the rate for 1929 (16.79) being the lowest recorded for the administrative county since county statistics were tabulated; it was, however, slightly higher than the rate for England and Wales.

The general death rate (12.22) was the highest recorded since the year 1922, though lower than the rate for England and Wales, which was 13.4.

The infant mortality rate (81 per 1,000 births) was considerably higher than that for the year 1928 (67) and is the highest recorded since 1925.

The death rate from Zymotic diseases also shows a considerable increase on that for 1928, principally due to a large increase in the number of deaths from Whooping Cough. The rate for 1929 (0.65) is the highest since 1925.

The death rate from Respiratory Tuberculosis was slightly higher than that for the previous year, the increase being confined to the rural districts. The mortality rate from this cause has been steadily falling for a considerable period, but in 1922 and 1927 there were slight checks in the declension.

The higher general and infant death rates were the result of deaths occurring from respiratory and circulatory diseases during the spell of abnormally cold weather in February and early March, children up to the age of 5 and adults over the age of 65 years being chiefly affected. This experience was common throughout the country.

PUBLIC HEALTH LEGISLATION.

The only Act of administrative interest which was passed and came into operation during the year was the Artificial Cream Act, 1929; this Act regulates the manufacture and sale of artificial cream.

Local Government Act, 1929.—This Act, though passed during the year under review, was not operative in respect of Public Health, until April 1st, 1930.

ORDERS, CIRCULARS, ETC.

(MINISTRY OF HEALTH.)

The following are the principal Orders, etc., made during the year, of administrative interest to County Councils:—

Influenza.—Circular 955, together with a revised edition of Memo. 2/Med., indicates precautions to be taken in the event of a sudden increase in the prevalence of Influenza.

Small-pox.—Contacts proceeding abroad.—Circular 1021 gives directions to be taken by local authorities in the case of persons who have been in direct contact with Small-pox and who intend to proceed to destinations abroad.

Vaccination.—Order No. 640 and Circulars 1025, 1025a and 1025b relate to safeguards to be observed in the performance of operations.

Venereal Diseases.—Circular 922 defines the type of specimen which may be examined at the cost of the Venereal Diseases Scheme.

Prevention of Infectious and Epidemic Diseases.—S. & R.O. 1929, No. 832, are regulations relating to the deratisation of ships.

Maternal Mortality and Ante-Natal Clinics.—Circular 1022, with accompanying Memorandum 145, M.C.W., outline a scheme for the conduct and scope of ante-natal clinics.

Artificial Cream Act, 1929.—Circular 989 indicates the lines upon which this Act will operate.

Treatment of Tuberculosis.—Circular 969 draws the attention of Local Authorities and Joint Tuberculosis Committees to the facilities provided by the National Association for the Prevention of Tuberculosis, at their Institution at Burrow Hill, Frimley, Surrey, for the technical education of tuberculous youths between the ages of 14 and 19 years.

Water Shortage.—A Memorandum issued by the Ministry of Health in July indicates measures which should be taken to mitigate any ill effects which may arise from a possible shortage of water.

Bacteriological Tests for Graded Milk.—Memo. 139, Foods, recommends standard methods to be followed in making tests for graded milk.

Children under School Age.—Joint Circular Ministry of Health 1054—Board of Education 1405, makes recommendations with regard to the provision of Nursery Schools for children between the ages of 2 and 5 years.

Training and Employment of Blind Pianoforte Tuners.—Circular 1403 provides for the maintenance of a high standard of efficiency amongst blind pianoforte tuners.

Local Government Act, 1929.—A number of Circulars were issued by the Ministry of Health during the year under review in anticipation of the coming into operation of this Act; amongst those which affect Public Health Departments, directly or indirectly, are the following :—

- Circular 1000. General Circular on the Act;
- Memorandum L.G.A. 1. Transfer of functions of Guardians;
- Memorandum L.G.A. 2. Model Administrative Scheme for County Councils;
- Memorandums L.G.A. 5 and 18. Payment of Grants to Voluntary Associations;
- Memorandum L.G.A. 6. Model Schemes for payment of Grant to Voluntary Associations;
- Circular 1023. Payment of Grant to British Social Hygiene Council, in respect of propaganda;
- Memorandums L.G.A. 15, 16 and 24. Review of County Districts;
- Memorandum L.G.A. 26. Transfer of Poor Law Institutions;
- Memorandum L.G.A. 28. M. & C.W. (Transfer of functions *re* Children Act, 1908, Part 1);
- Memorandum L.G.A. 30. Transfer of Vaccination Officers;
- Registration of Births Regulations (No. 371).

Annual Reports of District Medical Officers.—Two reports were still outstanding at the time of going to press, viz., those for the Borough of Blyth and the Urban District of Bedlingtonshire.

I am, my Lords, Ladies and Gentlemen,

Your obedient servant,

WILLIAM F. J. WHITLEY.

THE ADMINISTRATIVE COUNTY.

AREA.

The area of the County is 1,278,690 acres, divided as follows :—
Boroughs, 14,456 acres ; urban districts, 59,807 acres ; rural districts, 1,204,427 acres.

POPULATION.

The *civil* population of Northumberland (exclusive of the county boroughs of Newcastle-on-Tyne and Tynemouth) was estimated by the Registrar-General to be 409,800 in the middle of 1929. On this population the mortality rates are calculated.

The population on which the birth rate is calculated was estimated by the Registrar-General to be 409,980. The population of the administrative county at the 1921 census was 407,317.

RATEABLE VALUE.

Rateable value of administrative county, as at October 1st, 1929 (after derating), £1,851,079. Produce of a 1d. rate at April, 1929, £9,355.

CHANGES IN AREA.

No alteration in the area of sanitary districts or of the administrative county was made during the year under review.

BOROUGHES, URBAN AND RURAL DISTRICTS, AND PORT SANITARY AUTHORITIES.

The County at the *end* of 1929 was divided for the purpose of sanitary administration into 31 districts, four of which were municipal boroughs, seventeen urban districts, and ten rural districts. There are also the Blyth and Tyne Port Sanitary Authorities. The authorities for the Tweed and Coquet Ports are the Council of the Borough of Berwick-on-Tweed and the Amble Urban District Council respectively.

BOROUGHES.

Berwick-on-Tweed, Blyth, Morpeth and Walsend.

The civil population of the boroughs was estimated to be 95,606 in the middle of 1929.

URBAN DISTRICTS.

Alnwick, Amble, Ashington, Bedlingtonshire, Cramlington, Earsdon, Gosforth, Hexham, Longbenton, Newbiggin-by-the-Sea, Newburn, Prudhoe, Rothbury, Seaton Delaval, Seghill, Weetslade, and Whitley and Monk-seaton.

The civil population of the urban districts was estimated to be 208,594 in the middle of 1929.

RURAL DISTRICTS.

Alnwick, Belford, Bellingham, Castle Ward, Glendale, Haltwhistle, Hexham, Morpeth, Norham and Islandshires, and Rothbury.

The civil population of the rural districts was estimated to be 105,600.

The area and population of each sanitary district in the administrative county will be found in a table opposite page 16 of this report.

BIRTHS.

Live Births.—According to the statistics supplied by the Registrar-General the net births belonging to the administrative county numbered 6,885—3,452 males and 3,433 females (5,388 of the births occurred in urban districts and 1,497 in rural districts).

Of the 6,885 births above-mentioned 368 (5.3%) were illegitimate.

The birth rate for the county was 16.79 (18.37 in 1928 and 17.90 in 1927).

The following table shews the comparative rates :—

	Birth rate.	Increase since 1928.	Decrease since 1928.	Mean rate 1919-1928.
Administrative County ...	16.79	—	1.58	21.99
Urban districts ...	17.70	—	1.66	23.26
Rural districts ...	14.17	—	1.45	18.27
England and Wales ...	16.3	—	0.4	19.48

Still-births.—The net still-births stated by the Registrar-General to have been registered as belonging to the administrative county during the year 1929 numbered 297—161 males and 136 females (238 belonged to urban districts and 59 to rural districts). Fifteen, representing 5% of the 297 still-births, were illegitimate.

Comparative rates, per 1,000 of the population, and per cent. of the total births registered are given in the following table :—

	Number.	Rate per 1,000 population.	Percentage of total births registered.
Administrative County ...	297	0.72	4.1
Urban Districts ...	238	0.78	4.2
Rural Districts ...	59	0.55	3.7

Particulars of still-births as regards each sanitary district in the administrative county are shown in a table opposite page 16 of this report.

DEATHS.

Net deaths.—According to information supplied by the Registrar-General the net deaths numbered 5,009—2,546 males and 2,463 females (3,820 in urban and 1,189 in rural districts).

The following table shews the comparative rates :—

	Death rate.	Increase since 1928.	Decrease since 1928.	Mean rate 1919-1928.
Administrative County ...	12.22	0.83	—	12.12
Urban districts ...	12.55	1.07	—	12.30
Rural districts ...	11.25	0.12	—	11.60
England and Wales ...	13.4	1.7	—	12.24

Details of the deaths and death rates in the several districts are given in the table opposite page 16 of this report.

The diseases causing the greatest mortality in the administrative county during 1929 were as follows :—

Disease.	No. of deaths.	Percentage of total deaths.
Heart Disease	736	14·7
Cancer... ..	499	10·0
Tuberculosis	409	8·2
Pneumonia	388	7·7
Cerebral Hæmorrhage	291	5·8
Arterio-sclerosis	222	4·4
Bronchitis	213	4·2
	2,758	55·0

As during the preceding year, the above-named seven diseases were responsible for more than half the deaths in the administrative county.

INFANT MORTALITY.

	Number of deaths.	Death rate per 1000 births	Increase since 1928.	Decrease since 1928.	Mean rate 1919-1928.
Administrative County ...	557	81	14	—	84
Urban districts	473	87	15	—	90
Rural districts	84	56	7	—	64
England and Wales ...	47,868	74	9	—	75

The subjoined tables indicate the rates among legitimate and illegitimate infants respectively :—

	Legitimate Infants.		Illegitimate Infants.	
	No. of deaths under 1 year.	Death rate per 1000 births.	No. of deaths under 1 year.	Death rate per 1000 births.
Administrative County ...	509	78	48	130
Urban districts	436	85	37	142
Rural districts	73	52	11	100

DEATHS UNDER 5 YEARS AND AT 65 YEARS AND UPWARDS.

The rates (per 1,000 population) were as follows :—

	Under 5 years.	65 years and upwards.
Administrative County	2·13	4·91
Urban districts	2·46	4·66
Rural districts	1·17	5·62

INFECTIOUS DISEASES.

Notifications of Infectious Diseases received during the year 1929, under Article 14 (2) of the Sanitary Officers Order, 1926.

Sanitary districts.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Puerperal Fever.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Erysipelas.	Tuberculosis (Respiratory.)	Tuberculosis (Other Forms).	Encephalitis Lethargica.	Acute Polio-myelitis.	Cerebro-Spinal Fever.	Acute Polio-encephalitis.	Totals.
MUNICIPAL BOROUGHS—																
Berwick-on-Tweed ...	—	15	7	—	13	—	—	—	3	12	6	1	—	—	—	57
Blyth ...	—	19	4	2	166	—	4	4	11	91	17	1	—	—	1	320
Morpeth ...	—	3	2	—	19	—	1	—	—	18	5	—	—	—	—	48
Wallsend ...	3	138	39	1	161	—	7	5	30	166	55	2	1	—	—	608
URBAN DISTRICTS—																
Alnwick ...	1	11	1	1	—	—	—	—	2	13	4	—	—	—	—	33
Amble ...	—	1	—	—	—	—	—	—	1	4	3	—	—	—	—	9
Ashington ...	—	61	11	4	38	1	12	2	18	46	22	1	—	2	—	218
Bedlingtonshire ...	1	34	2	42	186	—	3	1	11	51	20	—	—	—	—	351
Cramlington ...	27	9	5	1	10	—	4	—	3	10	1	2	1	—	—	73
Earsdon ...	11	33	22	2	9	—	2	1	3	19	6	—	—	—	—	108
Gosforth ...	—	40	8	1	13	1	2	1	5	13	3	2	2	—	—	91
Hexham ...	7	17	3	—	21	1	1	—	3	18	—	4	—	—	—	75
Longbenton ...	5	26	13	—	47	—	2	1	15	12	3	—	—	—	—	124
Newbiggin-by-the-Sea ...	—	18	3	—	17	—	2	1	6	20	20	—	—	—	—	87
Newburn ...	—	36	9	8	53	3	9	1	5	40	21	—	—	—	—	185
Prudhoe ...	—	7	2	1	14	—	—	2	10	21	16	1	—	—	—	74
Rothbury ...	—	1	—	—	3	—	—	—	3	2	—	—	—	—	—	9
Seaton Delaval ...	3	9	1	—	32	—	—	—	13	17	13	—	—	—	—	88
Seghill ...	2	4	—	—	15	—	—	—	—	3	—	—	—	—	—	24
Weetslade ...	—	7	5	1	6	—	—	1	2	13	8	—	—	—	—	43
Whitley & Monkseaton ...	—	69	14	1	53	—	2	—	10	21	3	1	7	—	—	181
RURAL DISTRICTS—																
Alnwick ...	—	12	46	—	—	—	4	—	6	13	6	—	—	1	—	88
Belford ...	—	14	—	4	18	—	—	—	5	5	1	—	—	—	—	47
Bellingham ...	—	14	9	—	20	—	1	—	2	4	1	—	1	—	—	52
Castle Ward ...	—	55	9	—	42	—	—	—	11	29	11	1	—	—	—	158
Glendale ...	—	31	1	1	10	—	—	—	2	7	1	—	—	—	—	53
Haltwhistle ...	—	4	13	—	1	—	1	—	—	1	1	—	—	—	—	21
Hexham ...	—	18	4	—	39	1	3	—	19	16	4	1	1	—	—	106
Morpeth ...	—	19	2	3	21	3	1	3	12	36	19	—	1	—	—	120
Norham & Islandshires ...	—	7	2	—	4	—	2	—	3	3	3	—	—	—	—	24
Rothbury ...	—	5	4	—	4	—	1	—	2	4	5	—	—	—	—	25
Totals ...	60	737	241	73	1035	10	64	23	216	728	278	17	14	3	1	3500

The attack rate per 1,000 population, for the administrative county was 8.54, for boroughs and urban districts 9.22, and for rural districts 6.57.

The following are the attack rates, per 1,000 population, of the under-mentioned infectious diseases, in each sanitary district in the administrative county :—

Sanitary Districts.	Small-pox.	Scarlet fever.	Diphtheria.	Enteric fever.	Puerperal fever.	Puerperal pyrexia	Erysipelas.
<i>Municipal Boroughs.</i>							
Berwick	—	1.26	0.59	—	—	0.25
Blyth	—	0.60	0.12	0.06	—	0.34
Morpeth	—	0.40	0.26	—	—	—
Wallsend	0.06	3.08	0.87	0.02	—	0.67

Sanitary Districts.	Small-pox.	Scarlet fever.	Diphtheria.	Enteric fever.	Puerperal fever.	Puerperal pyrexia.	Erysipelas.
<i>Urban Districts.</i>							
Alnwick ...	0.14	1.58	0.14	0.14	—	—	0.28
Amble ...	—	0.24	—	—	—	—	0.24
Ashington ...	—	2.11	0.38	0.13	0.03	0.41	0.62
Bedlingtonshire ...	0.03	1.21	0.07	1.50	—	0.10	0.40
Cramlington ...	3.10	1.03	0.57	0.11	—	0.46	0.34
Earsdon ...	0.84	2.52	1.68	0.15	—	0.15	0.23
Gosforth ...	—	2.38	0.47	0.06	0.06	0.12	0.30
Hexham ...	0.82	2.00	0.35	—	0.11	0.11	0.35
Longbenton ...	0.35	1.84	0.92	—	—	0.14	1.06
Newbiggin ...	—	2.54	0.42	—	—	0.28	0.84
Newburn ...	—	1.77	0.44	0.39	0.14	0.44	0.24
Prudhoe ...	—	0.74	0.21	0.10	—	—	1.06
Rothbury ...	—	0.80	—	—	—	—	2.39
Seaton Delaval ...	0.39	1.19	0.13	—	—	—	1.71
Seghill... ...	0.81	1.62	—	—	—	—	—
Weetslade ...	—	0.90	0.64	0.12	—	—	0.25
Whitley & Monkseaton	—	2.89	0.58	0.04	—	0.08	0.42
<i>Rural Districts.</i>							
Alnwick ...	—	0.93	3.57	—	—	0.31	0.46
Belford ...	—	2.91	—	0.83	—	—	1.03
Bellingham ...	—	2.55	1.64	—	—	0.18	0.36
Castle Ward ...	—	3.83	0.62	—	—	—	0.76
Glendale ...	—	3.85	0.12	0.12	—	—	0.24
Haltwhistle ...	—	0.44	1.43	—	—	0.11	—
Hexham ...	—	0.83	0.18	—	0.04	0.13	0.88
Morpeth ...	—	0.96	0.10	0.15	0.15	0.05	0.61
Norham & Islandshires	—	1.34	0.38	—	—	0.38	0.57
Rothbury ...	—	1.07	0.86	—	—	0.21	0.43

The highest attack rates were, it will be observed, as follows :—

Small-pox.—Cramlington, 3.10 ; Earsdon, 0.84 ; Hexham urban, 0.82 ; and Seghill, 0.81.

Scarlet Fever.—Glendale, 3.85 ; Castle Ward, 3.83 ; and Wallsend, 3.08.

Diphtheria.—Alnwick rural, 3.57 ; Earsdon, 1.68 ; and Bellingham, 1.64.

Enteric Fever.—Bedlington, 1.50 ; Belford, 0.83 ; and Newburn, 0.39.

Puerperal Fever.—Morpeth rural, 0.15 ; Newburn, 0.14 ; and Hexham urban, 0.11.

Puerperal Pyrexia.—Cramlington, 0.46 ; Newburn, 0.44 ; and Ashington, 0.41.

Erysipelas.—Rothbury urban, 2.39 ; Seaton Delaval, 1.71 ; and Longbenton and Prudhoe each 1.06.

ZYMOTIC DISEASES.

The Zymotic diseases which are generally notifiable are Small-pox, Scarletina, Diphtheria, Fevers (Typhus, Enteric, Continued and Relapsing). The seven principal Zymotic diseases upon which the Zymotic death rate is calculated, are the four just mentioned, and in addition, Whooping Cough, Measles and Diarrhoea and Enteritis (under two years).

Two hundred and sixty-eight deaths were caused by the seven principal Zymotic diseases, being an increase of 151 compared with the number registered in 1928. Of these 232 took place in the urban and 36 in the rural districts.

The Zymotic diseases which caused the greatest mortality were :—

Diseases.	Number of deaths.		
	1929.	1928.	1927.
Whooping Cough... ..	118	38	14
Diarrhoea and Enteritis (under 2 years)	65	39	43
Measles	44	12	31

As Diarrhoea and Enteritis, Measles and Whooping Cough are not generally notifiable, no information can be given as to the number of cases which occurred.

The comparative rates for Zymotic diseases are set out in the following table :—

Diseases.	Death Rate.	Increase since 1928.	Decrease since 1928.
Administrative County	0·65	0·37	—
Urban districts	0·76	0·45	—
Rural districts	0·34	0·15	—
England and Wales	0·47	0·07	—

Tables showing death rates per 1,000 living, from each of the seven principal Zymotic diseases for the seven years ended December 31st, 1929 :—

Diseases.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Small-pox	Nil.	0·002	Nil.	0·002	0·004	Nil.	Nil.
Scarlatina	0·037	0·017	0·019	0·038	0·026	0·022	0·012
Diphtheria	0·029	0·036	0·041	0·024	0·019	0·031	0·041
Enteric Fever	0·009	0·012	0·019	0·007	0·016	0·014	0·046
Measles	0·335	0·036	0·271	0·031	0·074	0·029	0·107
Whooping Cough	0·189	0·131	0·111	0·259	0·033	0·093	0·288
Diarrhoea & Enteritis (under 2 years)	0·224	0·219	0·266	0·173	0·103	0·095	0·158

Small-pox.—No deaths occurred from this disease during the year. Sixty notifications were received, principally from the Urban District of Cramlington.

Typhus, Cholera, Plague, Anthrax (in human subjects).—No cases were reported.

Cerebro-spinal Meningitis.—Three cases were notified; one death was reported.

Polio-myelitis.—Fourteen cases were notified; three deaths occurred.

Polio-encephalitis.—One case was notified; no deaths were reported.

Chicken-pox was reported from thirteen sanitary districts.

SCARLET FEVER.

The notifications numbered 737 (558 from urban and 179 from rural districts). The mortality from this disease was 5 (3 deaths occurring in urban and 2 in rural districts). In 1928, 9 deaths were reported, and in 1927, 11.

		Death rate per 1000 population.	Increase since 1928.	Decrease since 1928.	Attack rate per 1000 living.
Administrative County	...	0·012	—	0·010	1·79
Urban districts	...	0·009	—	0·014	1·83
Rural districts	...	0·019	—	—	1·69
England and Wales	...	0·018	0·003	—	3·05

The greatest number of cases occurred in the Borough of Wallsend (138).

ENTERIC FEVER.

Seventy-three cases (65 from urban and 8 from rural districts) were notified, resulting in 19 deaths (17 occurring in urban and 2 in rural districts). In 1928 the mortality was 6, and in 1927, 7.

		Death rate per 1000 population.	Increase since 1928.	Decrease since 1928.	Attack rate per 1000 living.
Administrative County	...	0·046	0·032	—	0·17
Urban districts	...	0·059	0·043	—	0·21
Rural districts	...	0·019	0·010	—	0·07
England and Wales	...	0·010	—	0·001	0·07

The greatest number of cases occurred in the urban district of Bedlingtonshire (42).

DIPHTHERIA AND MEMBRANOUS CROUP.

The notifications numbered 241 (151 from urban and 90 from rural districts). The diseases (one or both) were notified from 27 districts, i.e., from all districts except the urban districts of Amble, Rothbury urban and Seghill, and the rural district of Belford.

Seventeen deaths occurred (10 in urban and 7 in rural districts); 13 deaths were reported in 1928, and 8 in 1927.

		Death rate per 1000 population.	Increase since 1928.	Decrease since 1928.	Attack rate per 1000 living.
Administrative County	...	0·041	0·010	—	0·58
Urban districts	...	0·032	0·003	—	0·49
Rural districts	...	0·066	0·028	—	0·85
England and Wales	...	0·087	0·006	—	1·59

MEASLES.

Forty-four deaths occurred (42 in urban and 2 in rural districts); 12 deaths were reported in 1928 and 31 in 1927.

	Death rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	0·107	0·078	—
Urban districts	0·138	0·112	—
Rural districts	0·019	—	0·018
England and Wales	0·086	—	0·023

WHOOPING COUGH.

The deaths numbered 118 (104 in urban and 14 in rural districts); 38 deaths were reported in 1928 and 14 in 1927.

	Death rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	0·288	0·195	—
Urban districts	0·341	0·229	—
Rural districts	0·133	0·095	—
England and Wales	0·160	0·085	—

PUERPERAL FEVER.

This disease caused 11 deaths (8 in urban and 3 in rural districts), compared with 6 in 1928 and 12 in 1927.

	Death rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	0·027	0·013	—
Urban districts	0·026	0·013	—
Rural districts	0·028	0·009	—

The distribution of the 11 deaths was as follows :—Bedlingtonshire, 1 ; Earsdon, 1 ; Gosforth, 2 ; Newburn, 2 ; Prudhoe, 1 ; Weetslade, 1 ; Alnwick rural, 2 ; and Rothbury rural, 1.

DIARRHOEA AND ENTERITIS.

At all ages.

The number of deaths at all ages was 97 (79 in urban and 18 in rural districts). In 1928, 69 deaths occurred, and in 1927, 73.

	Death rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	0·236	0·067	—
Urban districts	0·260	0·076	—
Rural districts	0·169	0·045	—

Under 2 years.

The deaths from this cause, under two years of age, numbered 65 (39 in 1928 and 43 in 1927); 56 occurred in urban and 9 in rural districts.

				Death Rate per 1,000 births.	Increase since 1928.	Decrease since 1928.
Administrative County	...	...	...	9·4	4·2	—
Urban districts	...	...	...	10·3	4·5	—
Rural districts	...	...	...	6·0	2·9	—

RESPIRATORY DISEASES.

Respiratory diseases (exclusive of Respiratory Tuberculosis) caused 663 deaths in the administrative county during the year; 547 occurred in urban and 116 in rural districts. 559 deaths were reported in 1928, and 709 during 1927. The following table shews the comparative rates :—

				Death Rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	...	...	...	1·61	0·24	—
Urban districts	...	...	...	1·79	0·31	—
Rural districts	...	...	...	1·09	0·04	—

INFLUENZA.

One hundred and ninety-six deaths were recorded (149 in urban and 47 in rural districts), as directly attributable to this disease during the year. The deaths during 1928 numbered 116, and during 1927, 195. The following table indicates the comparative rates :—

				Death Rate per 1,000 population.	Increase since 1928.	Decrease since 1928.
Administrative County	...	...	...	0·47	0·19	—
Urban districts	...	...	...	0·48	0·21	—
Rural districts	...	...	...	0·44	0·13	—

TUBERCULOSIS.

Table 1.
Deaths and death rates.

	Respiratory Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis (all forms).			
	Deaths.	Death rates per 100,000 living.	Increase in rates since 1928.	Decrease in rates since 1928.	Deaths.	Death rates per 100,000 living.	Increase in rates since 1928.	Decrease in rates since 1928.	Deaths.	Death rates per 100,000 living.	Increase in rates since 1928.	Decrease in rates since 1928.
Administrative County	301	74	6	—	108	26	—	—	409	100	6	—
Urban districts	...	238	79	—	87	28	—	—	325	107	—	—
Rural districts	...	63	60	25	21	20	—	—	84	80	25	—
England and Wales	...	31·425	79	3	65·65	17	—	—	37·990	96	3	—

TABLE OF VITAL AND MORTALITY STATISTICS, &c., 1929.

Table 1 shews the number of deaths and the death rates per 100,000 living from all forms of Tuberculosis. It will be observed that in Respiratory Tuberculosis there is an increase of 6 in the administrative county and 25 in the rural districts. The rate in the urban districts is the same as in the previous year. In the other forms of Tuberculosis the rate has not varied.

As indicated above, the death rate from all forms of Tuberculosis in the administrative county during 1929 was 100 per 100,000 persons living. Of the 409 deaths, 325 occurred in boroughs and urban districts (population 304,200) equivalent to a death rate of 107 per 100,000 living, and 84 in rural districts (population 105,600) corresponding to a death rate of 80 per 100,000 living.

Table 2.

Deaths and death rates, 1900—1929.

Administrative County of Northumberland.

Year.	Respiratory Tuberculosis.		Non-Pulmonary Tuberculosis.		Tuberculosis (all forms).		Total Deaths from all causes.	% of Deaths from Tuberculosis.
	No. of Deaths.	Death rate per 100,000 living.	No. of Deaths.	Death rate per 100,000 living.	No. of Deaths.	Death rate per 100,000 living.		
*1900	537	138	244	62	781	200	6,822	11.4
*1901	495	125	280	71	775	196	7,261	10.6
*1902	498	125	240	60	738	185	6,605	11.1
*1903	485	119	323	79	808	198	6,826	11.8
*1904	490	117	317	76	807	193	7,131	11.3
1905	344	102	239	71	583	173	5,016	11.6
1906	362	104	208	60	570	164	5,026	11.3
1907	355	100	197	55	552	155	4,790	11.5
1908	344	95	220	60	564	155	5,377	10.5
1909	377	101	207	55	584	156	4,994	11.6
1910	355	93	225	60	580	153	4,917	11.7
1911	366	98	200	54	566	152	5,159	10.9
1912	328	86	193	50	521	136	4,861	10.7
1913	353	91	189	48	542	139	5,175	10.4
†1914	360	92	180	47	540	139	5,125	10.5
†1915	376	103	197	54	573	157	5,786	9.9
†1916	394	110	187	52	581	162	4,915	11.8
†1917	378	106	194	54	572	160	4,851	11.7
‡1918	434	122	164	46	598	168	6,129	9.7
1919	367	97	136	36	503	133	5,335	9.4
1920	363	92	144	37	507	129	5,072	9.9
1921	347	87	151	38	498	125	4,944	10.1
1922	355	88	127	31	482	119	5,113	9.4
1923	345	85	122	30	467	115	4,599	10.1
1924	337	82	126	31	463	113	4,951	9.3
1925	324	78	123	30	447	108	4,807	9.3
1926	303	73	120	29	423	102	4,735	8.9
1927	337	81	90	22	427	103	4,812	8.9
1928	277	68	107	26	384	94	4,642	8.3
1929	301	74	108	26	409	100	5,009	8.2
Mean 1919-1928.	335	83	125	31	460	114	4,901	9.4

NOTES.—*Prior to 1905 Tynemouth U.D., Benwell and Walker were in County area.

†1914-1918 were "war" years.

‡1918 was the year of two severe epidemics of influenza.

Table 2 shews the deaths and death rates from 1900 to 1929 in the administrative county from respiratory tuberculosis, non-pulmonary tuberculosis, and all forms, with the total number of deaths from all causes and the percentage of deaths due to tuberculous disease. It will be noted that the death rate per 100,000 living from all forms of tuberculosis is 100, whilst in 1900 it was 200. The percentage of deaths from tuberculosis in 1900 was 11.4 against 8.2 in 1929. It should be observed that the total number of deaths in 1900 was 6,822 whilst in 1929 it was 5,009.

During the five years 1924—1928, the mean mortality rate from all forms of tubercular disease in the administrative county was 104 ; from respiratory tuberculosis, the mean rate was 76 ; and from non-pulmonary tuberculosis, 28 per 100,000 living. In the preceding quinquennial period (1919—1923) the mean rates were—from tuberculosis (all forms), 124 ; respiratory, 90 ; and other forms 34 per 100,000 persons living.

The following table shews notifications and mortality at specified age periods during the year 1929.

Table 3.

Age Periods.	New Cases.		Deaths.	
	Pulmonary.	Non-pulmonary.	Pulmonary.	Non-pulmonary.
<i>Years.</i>				
0—1 ...	2	5	1	9
1—5 ...	22	56	8	29
5—15 ...	137	112	20	21
15—25 ...	218	57	74	22
25—45 ...	253	31	122	13
45—65 ...	81	3	61	11
65 and upwards	9	1	15	3
	722	265	301	108

Table 3 has been set out in compliance with the requirements of the Ministry of Health.

No.	CAUSES OF DEATH.	Sex.	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.										Total.
			All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—	
	ALL CAUSES	M. F.	1937 1885	251 222	67 65	74 72	74 74	101 104	197 212	404 425	382 343	327 368	611 578	49 35	12 8	8 12	21 22	24 20	75 47	137 125	127 142	158 167	2,548 2,463
1	Enteric fever	M. F.	10 9	2 1	5 3	1 3	2 2	2	1	12 9
2	Small-pox...	M. F.
3	Measles	M. F.	19 23	5 5	8 5	6 12	...	...	...	...	...	...	1 1	...	...	...	...	...	...	...	...	20 24
4	Scarlet fever	M. F.	2 1	...	...	...	2 1	...	...	...	...	...	1 1	...	...	...	...	...	...	...	...	3 2
5	Whooping cough...	M. F.	46 58	19 22	17 19	9 15	1 2	...	...	...	...	...	8 6	5 2	3 ...	...	...	...	...	...	...	54 64
6	Diphtheria	M. F.	3 7	1 ...	...	...	1 3	...	1 ...	...	...	...	4 3	...	...	...	2 2	...	...	...	...	7 10
7	Influenza	M. F.	76 73	3 ...	2 ...	4 2	4 3	4 4	7 8	22 20	17 12	13 24	27 20	...	...	...	...	2 1	5 1	6 7	8 4	103 93
8	Encephalitis lethargica	M. F.	8 9	1 ...	...	...	1 1	...	...	3 1	1 1	...	1 ...	...	...	...	...	...	...	...	...	9 9
9	Meningococcal meningitis	M. F.	4 1	1 ...	...	...	1 ...	1 ...	1 ...	...	...	...	...	...	...	...	...	...	...	...	...	4 1
10	Tuberculosis of respiratory system	M. F.	119 119	1 ...	...	4 2	6 10	24 40	48 50	31 16	4 ...	1 1	39 24	...	...	...	...	6 4	14 10	12 2	3 5	158 143
11	Other tuberculous diseases	M. F.	45 42	6 2	5 5	8 6	11 9	8 9	4 4	3 6	...	...	10 11	1 ...	4 ...	...	...	3 2	2 3	...	...	55 53
12	Cancer, malignant disease	M. F.	168 209	1 ...	...	...	...	1 ...	5 21	72 101	61 61	28 23	47 75	...	...	...	...	...	6 3	18 27	12 26	215 284
13	Rheumatic fever...	M. F.	4 4	...	...	...	2 2	...	...	...	...	...	1 2	...	...	...	1 1	...	...	...	...	5 6
14	Diabetes	M. F.	11 35	...	...	...	...	...	...	2 13	5 11	4 5	5 7	...	...	...	1 ...	...	...	...	...	16 42
15	Cerebral haemorrhage, &c.	M. F.	113 105	...	...	...	...	...	1 3	24 30	40 35	47 37	31 42	...	...	...	...	...	1 1	5 15	13 9	144 147
16	Heart disease	M. F.	232 280	...	1 ...	...	4 1	10 14	13 26	76 82	73 77	55 80	115 109	...	...	...	...	1 1	5 9	29 24	42 34	387 389
17	Arterio-sclerosis	M. F.	114 63	...	...	...	...	...	2 ...	19 11	47 28	46 24	30 15	...	...	...	...	...	...	8 4	10 6	144 78
18	Bronchitis...	M. F.	81 86	9 14	...	3 1	...	1 ...	5 1	16 17	20 22	27 28	24 22	6 3	...	...	...	...	...	2 4	3 11	105 108
19	Pneumonia (all forms)	M. F.	172 161	37 37	26 19	14 19	7 11	9 5	18 13	34 19	17 21	10 17	32 23	2 4	2 5	...	1 2	1 ...	9 1	8 5	5 2	204 184	
20	Other respiratory diseases	M. F.	28 19	1 ...	1 ...	2 3	...	2 ...	6 5	6 3	6 4	4 4	8 7	...	...	...	...	...	2 1	2 ...	2 3	36 26
21	Ulcer of stomach or duodenum	M. F.	15 7	...	...	1 ...	...	2 ...	2 1	9 4	...	1 1	5 2	...	...	...	...	...	...	5 1	...	20 9
22	Diarrhoea, &c.	M. F.	47 32	31 19	3 3	6 1	1 3	1 ...	...	2 1	1 2	2 1	8 10	2 4	...	3 1	...	...	...	3 ...	...	55 42
23	Appendicitis and typhlitis	M. F.	8 2	...	...	1 ...	3 ...	...	1 2	...	...	...	4 2	...	...	...	1 ...	1 1	...	...	...	12 4
24	Cirrhosis of liver...	M. F.	12 3	...	...	...	...	...	...	8 2	1 ...	3 ...	2 ...	...	...	...	...	...	...	1 ...	...	14 3
25	Acute and chronic nephritis	M. F.	57 76	...	...	...	1 2	...	3 11	20 26	20 17	13 15	17 27	...	...	...	1 ...	...	2 4	3 6	8 5	74 103
26	Puerperal sepsis	M. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	Other accidents and diseases of pregnancy and parturition	M. F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Congenital debility and malformation, premature birth	M. F.	110 94	106 90	...	...	1 1	...	1 ...	...	...	...	23 16	22 16	...	...	...	...	...	...	...	133 110
29	Suicide	M. F.	25 8	...	...	...	...	2 1	7 3	15 3	1 1	...	6 3	...	...	...	...	...	2 ...	4 1	...	31 11
30	Other deaths from violence	M. F.	98 37	2 3	...	6 3	8 6	18 6	33 3	25 6	3 2	3 8	40 13	...	...	...	3 6	5 2	13 ...	10 1	4 1	138 50
31	Other defined diseases	M. F.	297 294	27 29	4 6	6 4	18 16	11 12	35 25	69 58	58 44	69 100	117 123	11 4	...	...	...	2 3	12 4	17 22	24 27	45 56
32	Causes ill-defined or unknown...	M. F.	13 5	...	...	...	...	...	3 ...	5 2	5 2	...	3 4	...	...	...	...	...	...	3 2	...	16 9

TABLE 4.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

SUMMARY OF NOTIFICATIONS DURING THE PERIOD FROM THE 30TH DECEMBER, 1928, TO THE 28TH DECEMBER, 1929, IN THE COUNTY OF NORTHUMBERLAND.

Notifications on Form A.													
Age-periods.	Number of Primary Notifications.												
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total Primary Notifications.	Total Notifications on Form A.
Pulmonary (Males) ...	1	11	36	30	59	51	65	60	40	20	3	376	432
" (Females) ...	1	11	32	39	46	62	83	45	16	5	6	346	394
Non-pulmonary (Males) ...	3	35	40	19	20	9	14	8	—	—	1	149	168
" (Females)	2	21	30	23	16	12	7	2	2	1	—	116	130
												987	

Age-periods.	Notifications on Form B.				Number of Notifications on Form C.	
	Number of Primary Notifications.				Total Notifications on Form B.	Poor Law Institutions.
	Under 5	5 to 10	10 to 15	Total Primary Notifications.		
Pulmonary (Males) ...	—	3	1	4	4	19
" (Females) ...	—	1	—	1	1	10
Non-pulmonary (Males) ...	—	4	1	5	5	9
" (Females)	—	6	1	7	7	1
				17		

Deaths from pulmonary and non-pulmonary tuberculosis.

61 cases of tuberculosis (26 pulmonary and 35 non-pulmonary) were not notified prior to death. Of this number 19 died in institutions, etc., outside the county.

This compares favourably with last year when 83 cases were unnotified.

ADMINISTRATION.

For convenience, the following data is given categorically in order to meet the requirements of the Ministry of Health :—

Public Health (Prevention of Tuberculosis) Regulations, 1925.—Following upon an application by the County Council, authority for enforcing these Regulations, within the area of the administrative county, was given to the County Council through the medium of the County of Buckingham (Prevention of Tuberculosis) Order, 1926. It was not found necessary to take any action under the Regulations during the year.

Public Health Act, 1925, Section 62.—No action was found to be necessary during the year.

As previously indicated, the mean death rate from *Respiratory Tuberculosis* in the administrative county during the previous five years (1924—1928) is 76 per 100,000; this rate is greater than that recorded from all the deaths arising from the seven principal Zymotic diseases, which shewed a mean rate of 43 per 100,000 during the same period.

TABLE 5.

INCIDENCE OF TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY ACCORDING TO DISTRICTS.

DISTRICTS.	“Live” cases on Registers at com- mencement of year.			Number of Primary Notifications during year.			Deaths Registered during year.			“Live” cases on Registers at end of year.		
	Respir- atory.	Other forms.	Total	Respir- atory.	Other forms.	Total	Respir- atory.	Other forms.	Total	Respir- atory.	Other forms.	Total
<i>Municipal Boroughs.</i>												
Berwick-on-Tweed ...	32	24	56	12	6	18	11	5	16	35	27	62
Blyth ...	166	85	251	91	17	108	35	12	47	231	94	325
Morpeth ...	26	5	31	18	5	23	5	4	9	31	1	32
Wallsend ...	389	220	609	166	55	221	49	16	65	485	246	731
<i>Urban Districts.</i>												
Alnwick ...	25	7	32	13	4	17	8	3	11	39	8	47
Amble ...	7	6	13	4	3	7	5	—	5	9	8	17
Ashington ...	141	56	197	46	22	68	21	12	33	167	70	237
Bedlingtonshire...	256	122	378	51	20	71	14	11	25	286	137	423
Cramlington ...	57	32	89	10	1	11	7	2	9	57	33	90
Earsdon ...	70	39	109	19	6	25	13	2	15	80	44	124
Gosforth ...	48	17	65	13	3	16	11	—	11	26	8	34
Hexham ...	146	14	160	18	—	18	5	1	6	158	15	173
Longbenton ...	28	17	45	12	3	15	7	4	11	18	8	26
Newbiggin-by-the-Sea ...	58	18	76	20	20	40	3	1	4	74	40	114
Newburn ...	167	134	301	40	21	61	12	4	16	195	151	346
Prudhoe ...	142	63	205	21	16	37	4	2	6	122	49	171
Rothbury ...	—	—	—	2	—	2	—	—	—	1	—	1
Seaton Delaval ...	48	27	75	17	13	30	8	1	9	56	38	94
Seghill ...	3	1	4	3	—	3	3	—	3	4	2	6
Weetslade ...	52	44	96	13	8	21	4	2	6	64	51	115
Whitley & Monkseaton...	88	38	126	21	3	24	13	5	18	110	40	150
<i>Rural Districts.</i>												
Alnwick ...	37	13	50	13	6	19	8	3	11	43	19	62
Belford ...	8	8	16	5	1	6	4	1	5	8	7	15
Bellingham ...	26	3	29	4	1	5	5	1	6	27	3	30
Castle Ward ...	70	37	107	29	11	40	1	2	3	96	46	142
Glendale ...	8	8	16	7	1	8	5	4	9	10	8	18
Haltwhistle ...	31	5	36	1	1	2	9	—	9	30	5	35
Hexham ...	149	46	195	16	4	20	12	2	14	156	50	206
Morpeth ...	90	54	144	36	19	55	14	4	18	120	72	192
Norham & Islandshires...	10	10	20	3	3	6	2	4	6	10	11	21
Rothbury ...	5	1	6	4	5	9	3	—	3	5	3	8
TOTALS ...	2,383	1,154	3,537	728	278	1,006	301	108	409	2,753	1,294	4,047

TREATMENT OF TUBERCULOSIS.

The undermentioned consolidated return shews the work of all dispensaries during the year 1929; succeeding tables give an outline of the work of individual dispensaries. It will be observed that of 1,831 new cases (including contacts) examined, 570 were definitely tuberculous, 23 cases were written off the dispensary registers as cured, 152 died, and at the end of the year 2,271 definite cases were on the dispensary registers.

TUBERCULOSIS SCHEME
OF THE NORTHUMBERLAND COUNTY COUNCIL.

RETURN SHEWING THE WORK OF THE DISPENSARIES DURING THE YEAR 1929.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—NEW CASES examined during the year (excluding contacts):												
(a) Definitely tuberculous ...	178	159	39	40	11	4	47	29	189	163	86	69
(b) Doubtfully tuberculous ...	—	—	—	—	—	—	—	—	58	42	45	47
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	95	48	116	93
B.—CONTACTS examined during the year:—												
(a) Definitely tuberculous ...	11	23	13	8	2	—	3	3	13	23	16	11
(b) Doubtfully tuberculous ...	—	—	—	—	—	—	—	—	18	11	18	27
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	79	133	211	220
C.—CASES written off the Dispensary Register as												
(a) Cured ...	6	2	—	—	—	2	5	8	6	4	5	8
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	—	—	—	—	—	—	—	—	204	211	342	337
D.—NUMBER OF PERSONS on Dispensary Register on December 31st:—												
(a) Diagnosis completed ...	675	589	272	267	32	30	231	175	707	619	503	442
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	29	20	35	37

Number of persons on Dispensary Register on January 1st...	1,998
Number of patients transferred from other areas and of "lost sight of" cases returned ...	77
Number of patients transferred to other areas and cases "lost sight of" ...	245
Died during the year ...	152
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months...	56
Number of attendances at the Dispensaries (including contacts) ...	5,184
Number of consultations with Medical Practitioners:—	
(a) At homes of applicants ...	191
(b) Otherwise ...	1,982
Number of other visits by Tuberculosis Officers to homes ...	230

Number of visits by Health Visitors to homes for Dispensary purposes	13,886
Number of specimens of Sputum, &c., examined	970
Number of insured persons on Dispensaries Registers on the 31st December	872
Number of insured persons under Domiciliary Treatment on the 31st December	288
Number of reports received during the year in respect of insured persons :—	
(a) Form G.P. 17	17
(b) Form G.P. 36	643

Three previous to 1926 cases, which had been written off as "cured" returned and were again entered on the Register as New Cases and included in Head "A" (a) 2 and A (b) 1.

Sleeping Shelters.—The loan of sleeping shelters is made to suitable cases. At the end of the year 35 shelters were in use by patients at their homes.

RETURN SHEWING THE WORK OF THE WALLSEND DISPENSARY
DURING THE YEAR 1929.

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
A.—NEW CASES examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	151	24	175
(b) Doubtfully tuberculous	—	—	83
(c) Non-tuberculous... ..	—	—	80
B.—CONTACTS examined during the year:			
(a) Definitely tuberculous	22	2	24
(b) Doubtfully tuberculous	—	—	52
(c) Non-tuberculous... ..	—	—	333
C.—CASES written off the Dispensary Register as :—			
(a) Cured	5	5	10
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)... ..	—	—	464
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—			
(a) Diagnosis completed	594	135	729
(b) Diagnosis not completed	—	—	19

Number of persons on Dispensary Register on January 1st... ..	607
Number of patients transferred from other areas and of "lost sight of" cases returned	25
Number of patients transferred to other areas and cases "lost sight of"	100
Died during the year	57
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	Nil.
Number of attendances at the Dispensary (including contacts) ...	1,875

RETURN SHEWING THE WORK OF THE BLYTH DISPENSARY
DURING THE YEAR 1929.

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
A.—NEW CASES examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	73	11	84
(b) Doubtfully tuberculous	—	—	22
(c) Non-tuberculous... ..	—	—	70
B.—CONTACTS examined during the year:			
(a) Definitely tuberculous	12	—	12
(b) Doubtfully tuberculous	—	—	5
(c) Non-tuberculous... ..	—	—	156
C.—CASES written off the Dispensary Register as :—			
(a) Cured	—	—	—
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)...	—	—	227
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—			
(a) Diagnosis completed	252	59	311
(b) Diagnosis not completed	—	—	14

Number of persons on Dispensary Register on January 1st...	246
Number of patients transferred from other areas and of "lost sight of" cases returned	7
Number of patients transferred to other areas and cases "lost sight of"	18
Died during the year	32
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	18
Number of attendances at the Dispensary (including contacts) ...	972

RETURN SHEWING THE WORK OF THE HEXHAM DISPENSARY
DURING THE YEAR 1929.

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
A.—NEW CASES examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	27	8	35
(b) Doubtfully tuberculous	—	—	55
(c) Non-tuberculous... ..	—	—	17
B.—CONTACTS examined during the year:			
(a) Definitely tuberculous	2	1	3
(b) Doubtfully tuberculous	—	—	12
(c) Non-tuberculous... ..	—	—	7

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
C.—CASES written off the Dispensary Register as :—			
(a) Cured	1	—	1
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)...	—	—	40
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—			
(a) Diagnosis completed	284	58	342
(b) Diagnosis not completed ...	—	—	55

Number of persons on Dispensary Register on January 1st...	376
Number of patients transferred from other areas and of "lost sight of" cases returned	26
Number of patients transferred to other areas and cases "lost sight of"	80
Died during the year	13
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	13
Number of attendances at the Dispensary (including contacts) ...	432

RETURN SHEWING THE WORK OF THE NEWBURN DISPENSARY
DURING THE YEAR 1929.

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
A.—NEW CASES examined during the year (excluding contacts) :—			
(a) Definitely tuberculous	27	15	42
(b) Doubtfully tuberculous	—	—	11
(c) Non-tuberculous... ..	—	—	11
B.—CONTACTS examined during the year:			
(a) Definitely tuberculous	4	3	7
(b) Doubtfully tuberculous	—	—	5
(c) Non-tuberculous... ..	—	—	53
C.—CASES written off the Dispensary Register as :—			
(a) Cured	—	3	3
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)...	—	—	77
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—			
(a) Diagnosis completed	127	86	213
(b) Diagnosis not completed ...	—	—	12

Number of persons on Dispensary Register on January 1st...	...	214
Number of patients transferred from other areas and of "lost sight of" cases returned	... ..	10
Number of patients transferred to other areas and cases "lost sight of"	... ..	40
Died during the year	... ..	8
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	... ..	18
Number of attendances at the Dispensary (including contacts)	...	417

RETURN SHEWING THE WORK OF THE ASHINGTON DISPENSARY
DURING THE YEAR 1929.

DIAGNOSIS.	Pulmonary.	Non-Pulmonary.	TOTAL.
A.—NEW CASES examined during the year (excluding contacts):—			
(a) Definitely tuberculous	138	33	171
(b) Doubtfully tuberculous	—	—	21
(c) Non-tuberculous... ..	—	—	174
B.—CONTACTS examined during the year:			
(a) Definitely tuberculous	15	2	17
(b) Doubtfully tuberculous	—	—	—
(c) Non-tuberculous... ..	—	—	94
C.—CASES written off the Dispensary Register as:—			
(a) Cured	2	7	9
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)...	—	—	286
D.—NUMBER OF PERSONS on Dispensary Register on December 31st:—			
(a) Diagnosis completed	546	130	676
(b) Diagnosis not completed	—	—	21

Number of persons on Dispensary Register on January 1st...	...	555
Number of patients transferred from other areas and of "lost sight of" cases returned	... ..	9
Number of patients transferred to other areas and cases "lost sight of"	... ..	7
Died during the year	... ..	42
Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	... ..	7
Number of attendances at the Dispensary (including contacts)	...	1,488

RESIDENTIAL INSTITUTIONS.

AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS
DURING THE YEAR 1929.

	Observa- tion.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total.
		" Sana- torium "	" Hospital "	Disease of Bones and Joints.	Other Conditions.	
Adult Males ...	8	78	20	—	2	108
Adult Females ...	8	42	20	—	2	72
Children under 15 ...	8	47	—	34	22	111
TOTAL...	24	167	40	34	26	291

RETURN SHEWING THE EXTENT OF RESIDENTIAL TREATMENT
DURING THE YEAR 1929.

			In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients	Ad'ts	M.	95	194	174	10	105
		F.	62	182	169	6	69
	Chil- dren.	M.	62	112	114	1	59
		F.	51	83	89	1	44
Number of Observation Cases	Ad'ts	M.	10	19	26	—	3
		F.	8	9	14	—	3
	Chil- dren.	M.	1	18	17	—	2
		F.	1	17	17	—	1
	TOTAL		290	634	620	18	286

RETURN SHEWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS*
AND OF OBSERVATION OF DOUBTFUL CASES DISCHARGED FROM
RESIDENTIAL INSTITUTIONS DURING THE YEAR 1929.

Classification on admission to the Institution.				Condition at time of discharge.		Duration of Residential Treatment in the Institution.										TOTAL.		
						Under 3 months.			3—6 months.			6—12 months.			More than 12 months.			
						M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.		F.	Ch.
PULMONARY TUBERCULOSIS	Class T.B. minus.	Quiescent... ..	4	23	15	25	51	48	25	16	31	2	—	2	242			
		Improved... ..	11	9	4	11	8	4	16	1	3	4	1	2	74			
		No material improvement	—	3	—	—	3	—	—	1	—	—	—	—	7			
		Died in Institution ...	—	—	1	—	—	—	—	—	—	—	—	—	1			
	Class T.B. plus Group 1.	Quiescent... ..	—	—	—	—	1	—	—	2	1	—	—	—	4			
		Improved... ..	3	—	—	4	1	—	2	2	—	1	—	—	13			
		No material improvement	—	—	—	—	—	—	—	—	—	—	—	—	—			
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Class T.B. plus Group 2.	Quiescent... ..	—	—	—	—	—	1	—	—	—	—	—	1	2			
		Improved... ..	6	5	—	10	7	—	14	6	—	6	1	—	55			
		No material improvement	2	2	—	5	1	—	5	5	—	3	—	—	23			
		Died in Institution ...	—	—	—	1	1	—	—	1	—	—	2	—	5			
	Class T.B. plus Group 3.	Quiescent... ..	—	—	—	—	—	—	—	—	—	—	—	1	1			
		Improved... ..	—	—	—	—	—	1	—	—	—	—	—	—	1			
		No material improvement	4	9	—	5	5	2	4	2	1	—	—	2	34			
		Died in Institution ...	5	2	—	3	—	—	—	—	1	1	—	—	12			
NON-PULMONARY TUBERCULOSIS.	Bones and Joints.	Quiescent or Arrested ...	—	—	5	2	—	3	—	—	2	—	—	9	21			
		Improved... ..	—	—	1	—	—	1	—	—	2	—	—	3	7			
		No material improvement	—	—	1	—	—	1	—	—	—	—	—	1	3			
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Abdominal.	Quiescent or Arrested ...	—	—	3	—	—	23	—	1	8	—	—	2	37			
		Improved... ..	—	—	5	—	1	2	—	—	1	—	—	1	10			
		No material improvement	—	—	1	—	—	1	—	—	—	—	—	—	2			
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Other Organs.	Quiescent or Arrested ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
		Improved... ..	—	—	—	—	—	—	—	—	—	—	—	—	—			
		No material improvement	—	—	—	—	—	—	—	—	—	—	—	—	—			
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
	Peripheral Glands.	Quiescent or Arrested ...	—	1	2	—	—	2	—	—	2	—	—	1	8			
		Improved... ..	—	1	—	—	—	1	—	—	—	—	—	—	2			
		No material improvement	—	—	—	—	—	—	—	—	—	—	—	—	—			
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—			
Observation for purpose of diagnosis.		Under 1 wk.			1—2 weeks.			2—4 weeks.			More than 4 weeks.							
	Tuberculous	—	—	2	—	—	5	—	—	16	18	5	6	52				
	Non-tuberculous... ..	—	—	—	1	—	—	—	4	1	6	5	3	20				
	Doubtful	1	—	—	—	—	—	—	—	—	—	—	1	2				

* It should be borne in mind that the definition of "patient" does not include persons in whom a definite diagnosis of tuberculosis has not been made.

Table IV shews in summary form the condition of all patients whose records are in the possession of the Dispensaries and, before studying this, the following notes on classification, etc., should be read :—

Patients diagnosed as suffering from *Pulmonary Tuberculosis* are placed in the following categories :—

Class T.B. minus, viz., cases in which tubercle bacilli have never been demonstrated in the sputum ; and

Class T.B. plus, viz., cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in Class T. B. minus must be transferred to Class T. B. plus at any stage in the course of treatment if and when tubercle bacilli are found ; while, on the other hand, a patient who is once placed in Class T. B. plus can never revert to Class T. B. minus.

Class T.B. plus is further subdivided into three groups as follows :—

Group 1.—Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows :—Either present in one lobe only and in the case of an apical lesion of one upper lobe not extending below the second rib in front or not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group 3.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, etc.

Group 2.—All cases which cannot be placed in Groups 1 and 3. Patients suffering from Non-pulmonary Tuberculosis are classified according to the site of the lesion as follows :—

- (1) Tuberculosis of bones and joints.
- (2) Abdominal Tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
- (3) Tuberculosis of other organs.
- (4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the table.

Observation Cases.—Persons attending at, or in connection with, the dispensaries, in whose cases the tuberculosis officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests. (These cases appear on Table 1, A and B, under subsection *b.*)

Quiescent.—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Arrested.—In pulmonary cases, the term “arrested” is applied only to cases which have been quiescent for a period of at least two years.

In non-pulmonary cases the term “arrested” is used as soon as there is reason to believe that the disease is unlikely to recur.

Cured.—No patient is deemed to be “cured” until in the case of pulmonary tuberculosis, five years, and, in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

TABLE IV.

(A) PULMONARY TUBERCULOSIS.

Annual Return shewing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as shown on page 29.

Condition at the time of the last record made during the year to which the Return relates	Previous to 1926				1926				1927				1928				1929			
	Class T.B. minus				Class T.B. plus				Class T.B. minus				Class T.B. plus				Class T.B. minus			
	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Group 1	Group 2	Group 3	Total (Class T.B. plus)
Discharged as cured	Adults M.	25	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	13	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Children M.	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disease arrested	F.	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Adults M.	61	3	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disease not arrested	Children M.	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	24	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Adults M.	60	10	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CONDITION NOT ASCERTAINED DURING THE YEAR ...	F.	39	5	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Children M.	25	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	26	4	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER ...	Adults M.	123	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Children M.	620	105	115	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DEAD	F.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Adults M.	77	12	77	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	52	4	53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS ...	Children M.	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F.	14	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	TOTALS ...	1270	151	304	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE IV.
(B) NON-PULMONARY TUBERCULOSIS.

Annual Return shewing in summary form the condition of all patients whose case records are in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification, as shown on page 29.

Condition at the time of the last record made during the year to which the Return relates	Previous to 1926					1926					1927					1928					1929				
	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total
ALIVE.	Discharged as cured	Adults	M.	F.	1 3	2 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Children	M.	F.																					
	Disease arrested	Adults	M.	F.	...	1 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Children	M.	F.																					
	Disease not arrested	Adults	M.	F.	...	9 25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Children	M.	F.																					
TRANSFERRED TO PULMONARY ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CONDITION NOT ASCERTAINED DURING THE YEAR ...	17	7	...	5	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER ...	50	60	6	65	181	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DEAD	Adults	M.	F.	1 2	3 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Children	M.	F.																						
TOTALS ...	111	109	15	131	366	10	49	3	30	92	17	34	2	22	75	25	52	4	55	136	17	54	3	46	120

REPORT OF THE MEDICAL SUPERINTENDENT,
 WOOLEY SANATORIUM,
 FOR THE YEAR ENDED 31ST DECEMBER, 1929.

The year 1929 has been an important one in the development of the Sanatorium, as a good deal of new constructive work tending to improve the efficiency and amenities of the Institution has been undertaken.

Roads.

A complete system of roads and paths, properly penned and surfaced with tarmac, has been constructed. This has contributed materially to the comfort of patients and staff, particularly in winter, and has made it easier to keep the wards clean.

Refrigerator.

The installation of a "Frigidaire" cold storage plant has solved the problem of keeping meat and milk in the summer months.

Potato-washing Machine.

The provision of a potato-washing machine has minimised the drudgery of peeling potatoes daily for a community of about 240 people, and has resulted in an economy of eight stones of potatoes per week.

Kitchen Range.

A more satisfactory type of kitchen range has been provided.

Internal Telephone System.

The installation of an automatic relay telephone system has been a great boon in an institution where the various blocks are so far apart.

Domestic Hot Water Supply.

The installation of a new high-speed engine in the engine-room has enabled exhaust steam to be utilised for heating the domestic hot water supply in the Administrative Block and Nurses' Home. An ample supply of hot water is now available for all purposes.

The cumulative effect of the improvements has been considerable, and it has been particularly noticeable in those items concerning food, viz., the refrigerator, the potato-washing machine and the kitchen range. Complaints have been very rare.

The following items were in course of construction at the end of the year, but had not been completed :—

The Gardener's cottage.

Extensions to the sewage plant.

The Maids' Recreation Room.

The latter is particularly important in view of the difficulty in keeping maids of a good type so far away from the attractions of town life. It is hoped that the provision of a well furnished, comfortable room will help to overcome this difficulty.

Structural Renewals and Repairs.

A considerable amount of painting was done by contract.

Water Supply.

The supply of water gave rise to anxiety during the year and restrictions in the consumption of water had to be imposed. The whole matter is being investigated by the County Architect.

Cases dealt with.

During the year 376 cases were discharged from the Institution, classified as follows :—

Quiescent	...	...	...	...	...	...	133
Improved		...	...	...	...	...	149
No material improvement				...	...	...	61
Died	...	...	...	...	...	...	16
Non-Tuberculous			...	...	...	...	17
							<hr/> 376 <hr/>

The “no material improvement” and “died” contribute a total of 77, representing the difficult problem of the advanced case. It might be asked why such a proportion do badly in a sanatorium. With a few exceptions, these cases were new admissions. A great many were of an acute type of the disease who did not respond to treatment and who were hopeless from the beginning. In such cases it is not really a matter of late diagnosis. It is due to an inherent lack of resistance to the disease.

In this connection, it is noteworthy that out of a total of five “farm labourers” treated during this year, four were of a severe type. Two of these died in the Institution, two did badly and died later at home. One only was “improved”.

While it is true to say that the total number of cases in this occupation from the large agricultural community in the County is very small, it is worthy of remark that in an occupation which is essentially healthy and which would be expected to be comparatively immune from tuberculosis, the majority showed little or no response to treatment.

This tends to support the view that resistance to tuberculosis is largely acquired by repeated small infections insufficient to produce the disease in healthy people. In industrial areas opportunities for such infections are numerous, leading to a higher degree of resistance to infection and to a more chronic form of tuberculosis.

Speaking generally, mortality statistics of different countries show that where industrialisation has been of long-standing as in England, there is a steadily declining death rate from tuberculosis, and where industrialisation has been of more recent date, as in Norway and Japan, the death rate is actually rising. This is held to be due to bringing a population that has not been thoroughly “tuberculised” and consequently resistant, into contact with modern industrial conditions where opportunities for infection are numerous.

Occupation.

The following table shews the occupation of the cases dealt with during the period under review :—

Male.

Miner	98	Civil servant	1
Labourer	23	Chemist	1
Fitter (engineer)	7	Driller	1
Farm servant	5	Electrician	1
Painter	4	Errand boy	1
Blacksmith	3	Engine driver	1
Mason	3	Fireman	1
Brass finisher	2	Fisherman	1
Clerk	2	Fishing-rod maker	1
Club steward	2	Joiner	1
Moulder	2	Milk salesman	1
Motor driver	2	Page boy	1
Plumber	2	Paper boy	1
Rivetter	2	Pavior	1
Shopman	2	Pattern-maker	1
Butler	1	Postman	1
Boat builder	1	Railway porter	1
Boiler-maker	1	Railway shunter	1
Baker	1	Surveyor	1
Coppersmith	1	Store-keeper	1
Cook (ship's)	1	No occupation	5
Coal merchant	1		—
Colliery engineman	1		192

Female.

Housewife	92	Gardener (Market)	1
Domestic	65	Laundress	1
Clerk	5	Machinist	1
Shop assistant	4	Ropery-worker	1
Farm servant	2	Slipper maker	1
Bus conductress	1	Store-keeper	1
Commercial traveller	1	No occupation	5
Cook	1		—
Collector	1		184
Glass worker	1		

Average Duration of the Stay.

The average period of treatment compared with previous years was as follows :—

	1924-25.	1925-26.	1927.	1928.	1929
Male	167.1	183.3	177.3	183.01	179.9
Female	149.9	151.5	156.1	151.84	128.3

Every effort has been made to keep the full number of beds, 180, occupied throughout the year, the average being 178.24 or 99.02 per cent.

Treatment.

Treatment has been conducted on the usual Sanatorium lines with "Occupational Therapy" or "Graduated Labour" in the garden and in the various departments of the Settlement.

Special forms of treatment, such as "Artificial Pneumothorax" and "Sanocrysin" have been carried out in suitable cases. These methods have been described in detail in previous reports.

X-Ray.

Provision has been made for the early installation of a modern apparatus.

During the year screening of the chest was carried out as a routine measure with the existing equipment.

Laboratory.

Repeated microscopic examinations of the sputum for tubercle bacilli were made in all cases.

Clothing.

Clothing has been provided for necessitous cases out of the grant of £50 per annum. Gifts of clothing from private charitable sources have also been available. Corduroy trousers and clogs have been provided for the use of patients working in the garden and on the pig farm.

This has proved a popular innovation as it was a frequent source of complaint from patients that their clothes and boots were quickly worn out or ruined in these occupations and that they were unable to replace them.

Garden and Grounds.

The lay-out of the front of the Institution has been completed and is now the most noteworthy feature of the Sanatorium grounds. The cheerful co-operation of convalescent patients has alone made it possible. It is hoped to proceed with the areas between the wards as opportunity affords.

Religious Services.

New Chapel.—The new Church of England Chapel was officially opened and dedicated in September, 1929, by Bishop Hornby. It is a beautiful little stone building with a seating capacity of about 70 and is proving a considerable asset to the Institution. Services are held on Monday evenings and are well attended.

The Rev. J. H. Salisbury, the Vicar of Slaley, to whom the credit is due for raising the necessary funds, has moved to the Parish of Haydon Bridge. The new Vicar, the Rev. M. W. Proud, is now carrying on the work.

Non-conformist Services.—Non-conformist services are held on alternate Sundays in the Patients' Recreation Room. A rota of lay preachers is available from the district circuit.

Roman Catholic Services.—Roman Catholic services have been arranged on the first Wednesday of each month and are conducted by the Rev. Father Walsh of Hexham.

Recreation.

The Patients' Social Union has continued to cater for this side of Sanatorium life, and the "penny a week" contributions provide a fund for the provision of indoor games, playing cards, etc.

Thanks are due to various concert parties for their services during the winter months.

Gifts of books, magazines, etc., have been received from the British Red Cross Society and from private individuals.

The Men's Recreation Room was provided with additional furniture during the year.

A comfortable recreation room for the women patients would be a very useful addition to the institution, particularly in the winter months.

The table taken from the Ministry of Health Return Memo. 37/T., showing the classification of the cases discharged during the year, is appended.

I have the honour to be,
Ladies and Gentlemen,
Your obedient servant,
R. CUNNINGHAM,
Medical Superintendent.

Classification on admission to the Institution.		Condition at time of discharge.	Duration of residential treatment.								TOTAL.
			Under 3 Months.		3—6 Months.		6—12 Months.		More than 12 Months.		
			M.	F.	M.	F.	M.	F.	M.	F.	
MONARY TUBERCULOSIS.	Class T.B. Minus	Quiescent ...	4	23	25	51	25	16	2	—	146
		Improved ...	11	9	11	8	16	1	4	1	61
		No material improvement	—	3	—	3	—	1	—	—	7
		Died in Institution ...	—	—	—	—	—	—	—	—	—
	Class T.B. Plus. Group 1.	Quiescent ...	—	—	—	1	—	2	—	—	3
		Improved ...	3	—	4	1	2	2	1	—	13
		No material improvement	—	—	—	—	—	—	—	—	—
		Died in Institution ...	—	—	—	—	—	—	—	—	—
	Class T.B. Plus. Group 2.	Quiescent ...	—	—	—	—	—	—	—	—	—
		Improved ...	6	5	10	7	14	6	6	1	55
		No material improvement	2	2	5	1	5	5	3	—	23
		Died in Institution ...	—	—	1	1	—	1	—	2	5
	Class T.B. Plus. Group 3.	Quiescent ...	—	—	—	—	—	—	—	—	—
		Improved ...	—	—	—	—	—	—	—	—	—
		No material improvement	4	9	5	5	4	2	—	—	29
		Died in Institution ...	5	2	3	—	—	—	1	—	11
NON-PULMONARY TUBERCULOSIS.	Bones and Joints	Quiescent or Arrested...	—	—	2	—	—	—	—	—	2
		Improved ...	—	—	—	—	—	—	—	—	—
		No material improvement	—	—	—	—	—	—	—	—	—
		Died in Institution ...	—	—	—	—	—	—	—	—	—
	Abdominal	Quiescent or Arrested...	—	—	—	—	—	1	—	—	1
		Improved ...	—	—	—	1	—	—	—	—	1
		No material improvement	—	—	—	—	—	—	—	—	—
		Died in Institution ...	—	—	—	—	—	—	—	—	—
	Peripheral Glands	Quiescent or Arrested...	—	1	—	—	—	—	—	—	1
		Improved ...	—	1	—	—	—	—	—	—	1
		No material improvement	—	—	—	—	—	—	—	—	—
		Died in Institution ...	—	—	—	—	—	—	—	—	—
			Under 1 week.	1—2 weeks.		2—4 weeks.		More than 4 weeks.			
Observation for purposes of diagnosis.	Tuberculous ...	—	—	—	—	—	—	18	5	23	
	Non-tuberculous ...	—	—	1	—	—	4	6	5	16	
	Doubtful ...	1	—	—	—	—	—	—	—	1	

NORTHUMBERLAND COUNTY COUNCIL. YEAR, 1929. (MILK AND DAIRIES ORDER, 1926. PART IV).

(MILK AND DAIRIES (CONSOLIDATION) ACT, 1915. S.8).

Sanitary District.	No. of Cow-keepers.	Approx. No. of Cows.	Milk Samples.			No. of Samples found to contain Tub. Bac.	No. of Cows slaughtered in consequence	Result of Post-mortem examination. Organs affected.	Remarks.
			No. of Samples	No. of Cows represented.	No. of Herds represented.				
1. Berwick M.B....	47	208		Infected animal not traced.
2. Blyth M.B. ...	15	117	11	86	7	1	...		
3. Morpeth M.B....	2	33	...	...	...	...	...
4. Wallsend M.B.	13	123	...	...	...	...	...
5. Alnwick U.D....	27	180	6	27	6	...	...
6. Amble U.D. ...	7	99	...	...	...	...	...
7. Ashington U.D.	5	69	...	...	...	...	...
8. Bedlington U.D.	50	443	15	108	10	1	1	Lungs, udder.	
9. Cramlington U.D.	13	124	...	...	...	...	1	Lungs, udder, pleura, peritoneum, mesentry.
10. Earsdon U.D....	24	166	12	106	10	...	...
11. Gosforth U.D.	5	60		Lungs, udder, pleura, peritoneum, liver, mesentry, mammary glands. Trachaea, lungs, udder, liver, pleura, peritoneum, uterus.
12. Hexham U.D....	24	243	11	87	10	...	...
13. Longbenton U.D.	23	348	12	87	3	...	...
14. Newbiggin U.D.	4	40	...	...	...	...	...
15. Newburn U.D.	26	305	4	87	3	1	1		
16. Prudhoe U.D....	28	295	7	69	7	1	1		
17. Rothbury U.D.	8	23	...	...	...	...	...
18. Seaton Delaval U.D. ...	17	169	6	59	5	...	...
19. Seghill U.D. ...	3	56	...	...	...	...	...
20. Weetslade U.D.	7	50	...	...	...	...	...
21. Whitley & Monkseaton U.D.	9	104	Udder, liver, supra-mammary.	(1) Lungs. (2) Pleura, peritoneum, mesentry, mammary. 1 cow not traced. 2 cows not traced.
22. Alnwick R.D....	52	475	12	64	12	1	1		
23. Belford R.D. ...	23	278	12	69	12	...	...
24. Bellingham R.D.	31	217	12	56	12	...	...
25. Castle Ward R.D.	83	1,200	15	134	13	...	...
26. Glendale R.D.	33	156	12	47	12	...	...
27. Haltwhistle R.D.	53	516	16	225	16	...	...
28. Hexham R.D.	565	4,726	39	423	31	3	2		
29. Morpeth R.D....	161	1,937	24	220	8	3	1		
30. Norham & Islandshires R.D.	38	208	12	112	12	...	...
31. Rothbury R.D.	19	174	4	27	1		
Total	1,415	13,142	242	2,104	190	12	8		

SUMMARY OF EXAMINATIONS OF MILK SAMPLES FROM HERDS WITHIN THE COUNTY.

	No. of Samples Collected.	No. of Cows represented.	% of Cows in County Tested.	No. of Herds represented.	% of Herds Tested.	No. of Samples "Positive."	% of Herds giving infected Milk.	% of Cows found to be Tubercular.	No. of Cows Slaughtered.
Oct., 1927, to Dec. 31st, 1928 ...	318	2,872	23.5	227	16.3	10	4.27	0.52	15
Jan., 1929, to Dec. 31st, 1929 ...	242	2,104	16.0	190	13.4	12	5.26	0.57	8
	560	4,976	39.5	417	29.7	22	4.76	0.54	23

MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.

Twenty-six " notices " under the above Act were received from Authorities outside the administrative County with respect to tubercle bacilli having been found in milk produced within the area of the County.

The County Veterinary Inspectors in consequence examined the herds involved, numbering 614 cows, and took 44 samples of milk which were submitted to the biological test in the Council's laboratory.

Eleven of these samples were found to be infected with tubercle bacilli.

Thirteen cows were slaughtered in consequence of the above procedure.

MILK AND DAIRIES ORDER, 1926 (PART IV.).

The systematic examination of milk from herds of cows within the County for the purpose of detecting animals suffering from tuberculosis, and the veterinary inspection of herds from which infected samples have been obtained, has been actively pursued during the year.

The co-operation of District Sanitary Officers has again been willingly accorded and greatly appreciated.

The number of cowkeepers " registered " in the County at the end of the year was 1,415, and the approximate bovine population was 13,142.

Details of the sampling are shown in tabular form (opp. page 36) together with the totals for the previous year.

It will be seen that 560 samples have been collected for this purpose since October, 1927, representing 417 herds, or 29·7 per cent. of the herds in the County.

Of the 242 samples collected during the year 1929, 12 (10 herds) were found to be infected with tubercle bacilli. The herds concerned were consequently examined by the County Veterinary Officers, and 8 cows were taken under the provisions of the Tuberculosis Order and slaughtered.

In four instances, the cow or cows responsible for infecting the bulk supply from which the samples were obtained could not be traced. This is partly attributable to the length of time which must necessarily elapse between the taking of the sample and the receipt of the bacteriological report, as during such period the infected animals may have been removed from the herd, and consequently would not be available for veterinary inspection at the end of the period.

The percentages of herds giving infected milk, and of cows found to be tubercular, are slightly higher than those of the previous period.

The total number of animals slaughtered as a result of routine inspection, and in consequence of reports received from other authorities, was 21.

MILK (SPECIAL DESIGNATIONS) ORDER, 1923.

Grade " A " Milk Licences.—Licences to produce Grade " A " milk were issued to 10 applicants during the year. In each case, the standard laid down by the Order in regard to methods of production, storage and handling of the milk, cleanliness of milkers, and of utensils, has been well maintained.

Having regard to the facilities for obtaining licences offered by the County Council, and also to the high standard of production attained by many producers of milk in the County, it is somewhat surprising that a greater demand for Grade " A " licences has not materialised.

COUNTY BACTERIOLOGICAL LABORATORY, 1929.

During the year the following specimens were examined in the Laboratory :

SANITARY DISTRICTS.	Sputa for B. Tuberculosis.			Swabs for B. Diphtheriae.			Blood for Agglutination.			Milk for B. Tuberculosis. (Biological).			Water.	Milk for Count, etc.	Various other Specimens.	TOTALS.
	+	—	Total.	+	—	Total.	+	—	Total.	+	—	Total.				
<i>Boroughs.</i>																
Berwick	5	9	14	1	12	13	1	1	2	...	...	...	...	...	...	29
Blyth	49	125	174	4	14	18	1	...	1	...	...	...	...	...	...	205
Morpeth	9	28	37	...	4	4	...	...	...	...	...	...	...	...	1	41
Wallsend	59	244	303	14	66	80	1	4	5	...	...	...	...	...	...	389
<i>Urban Districts.</i>																
Alnwick	6	15	21	3	15	18	1	1	2	...	...	...	...	...	1	50
Amble	3	6	9	1	4	5	...	...	...	...	...	...	...	...	...	14
Ashington	22	116	138	2	8	10	...	...	...	...	...	...	...	...	...	160
Bedlington	22	106	128	2	11	13	22	14	36	...	...	...	...	...	1	193
Cramlington	6	27	33	...	...	...	1	2	3	...	...	...	...	...	2	38
Earsdon	10	25	35	1	3	4	...	...	...	...	...	...	...	...	...	53
Gosforth	22	48	70	5	83	88	...	...	...	...	...	...	...	...	...	165
Hexham	7	48	55	3	17	20	...	...	...	...	...	...	...	...	1	91
Longbenton	4	29	33	1	17	18	...	...	...	...	...	...	...	...	1	64
Newbiggin	7	44	51	3	18	21	...	...	...	...	...	...	...	...	1	74
Newburn	16	45	61	3	11	14	...	...	...	...	...	...	...	...	4	89
Prudhoe	1	17	18	2	8	10	...	...	...	...	...	...	...	...	...	35
Rothbury	...	5	5	...	1	1	...	...	...	...	...	...	...	...	...	6
Seaton Delaval	4	45	49	...	3	3	...	...	...	...	...	...	...	...	1	59
Seghill	4	1	5	...	...	...	...	...	...	...	...	...	...	...	...	5
Weetslade	6	23	29	5	11	16	...	...	...	...	...	...	...	...	...	45
Whitley and Monkseaton	17	59	76	9	73	82	2	2	4	...	...	...	...	...	6	168
<i>Rural Districts.</i>																
Alnwick	4	15	19	12	31	43	...	...	...	1	11	12	...	...	...	74
Belford	2	6	8	...	7	7	...	2	4	...	...	...	...	...	...	35
Bellingham...	2	13	15	3	37	40	...	2	2	...	...	...	...	...	...	71
Castle Ward	3	73	76	3	49	52	...	2	2	...	...	...	...	...	...	145
Glendale	4	9	13	1	1	2	...	...	1	...	...	...	...	...	...	29
Haltwhistle...	2	10	12	1	9	10	...	...	...	...	...	...	...	...	...	38
Hexham	3	33	36	7	41	48	...	2	2	...	...	...	...	...	...	143
Morpeth	12	71	83	...	6	6	...	...	2	...	...	...	...	...	...	117
Norham & Islands.	1	2	3	...	6	6	...	...	...	...	...	...	...	...	...	21
Rothbury	1	5	6	...	12	16	...	...	...	...	...	...	...	...	1	27
Hospitals and other sources	...	7	7	84	230	314	3	1	4	22	79	101	58	16	...	512
TOTALS	313	1309	1622	174	808	982	40	56	96	34	314	348	58	44	...	3185

THE SALE OF FOOD AND DRUGS ACTS.

The County Council is the administrative authority under the above Acts throughout the administrative county, excepting in the area of the Borough of Berwick-upon-Tweed. Samples for examination by the County Analyst are taken by the police. The results of the analyses of samples taken during 1929 and the percentage of those found to be adulterated are shewn in the subjoined table.

No. of Samples taken.	Description of Article.	Result of Analysis.			Per- centage of Samples Not Genuine.	Vendor Prosecuted.	Convic- tions including cases dis- missed on payment of costs.
		Genuine.	Not Genuine.	Doubtful.			
4	Arrowroot	4	—	—	—	—	—
1	Aspirin	1	—	—	—	—	—
69	Butter	69	—	—	—	—	—
30	Baking Powder	30	—	—	—	—	—
2	Bi-Carbonate of Soda	2	—	—	—	—	—
2	Beef Suet... ..	2	—	—	—	—	—
17	Bacon	17	—	—	—	—	—
1	Blanc Mange Powder	1	—	—	—	—	—
4	Condensed Evaporated Milk	4	—	—	—	—	—
28	Cream	28	—	—	—	—	—
9	Corn Flour	9	—	—	—	—	—
13	Custard Powder	13	—	—	—	—	—
22	Coffee	22	—	—	—	—	—
2	Coffee and Chicory	2	—	—	—	—	—
23	Cocoa	23	—	—	—	—	—
1	Corned Beef	1	—	—	—	—	—
1	Chicken Roll	1	—	—	—	—	—
8	Cream of Tartar	8	—	—	—	—	—
5	Cheese	5	—	—	—	—	—
1	Cherry Cake	1	—	—	—	—	—
1	Camp Pie	1	—	—	—	—	—
1	Camphorated Oil	1	—	—	—	—	—
2	Cake Flour	2	—	—	—	—	—
1	Genoa Cake	1	—	—	—	—	—
1	Cocoanut	1	—	—	—	—	—
1	Cherries in Jelly	1	—	—	—	—	—
1	Chutney	1	—	—	—	—	—
2	Egg Substitute	2	—	—	—	—	—
1	Farola	1	—	—	—	—	—
2	Fruit Sauce	2	—	—	—	—	—
13	Ground Rice	13	—	—	—	—	—
2	Ground Almonds	2	—	—	—	—	—
1	Glycerine	1	—	—	—	—	—
3	Ground Ginger	3	—	—	—	—	—
1	Honey	1	—	—	—	—	—
24	Ice Cream	24	—	—	—	—	—
49	Jams, Jelly & Marmalade	44	5	—	10.20	—	—
43	Lard	43	—	—	—	—	—
3	Lemonade Powder	3	—	—	—	—	—
1	Licorice Powder	1	—	—	—	—	—
4	Lemon Curd	4	—	—	—	—	—
252	Milk	222	30	—	11.90	21	14
55	Margarine	54	1	—	1.82	—	—
2	Mince	2	—	—	—	—	—
6	Meat and Fish Pastes	6	—	—	—	—	—
1	Mustards	1	—	—	—	—	—
1	Mincemeat	1	—	—	—	—	—
1	Orange Squash	1	—	—	—	—	—
1	Olive Oil	1	—	—	—	—	—
21	Pepper	21	—	—	—	—	—
740	Carried forward	704	36	—	—	21	14

No. of Samples taken.	Description of Article.	Result of Analysis.			Percentage of Samples Not Genuine.	Vendor Prosecuted.	Convictions including cases dismissed on payment of costs.
		Genuine.	Not Genuine.	Doubtful.			
740	Brought forward ...	704	36	—	—	21	14
2	Peas ...	2	—	—	—	—	—
4	Potted Meat ...	4	—	—	—	—	—
2	Prunes ...	2	—	—	—	—	—
1	Potato Flour ...	1	—	—	—	—	—
1	Semolina ...	1	—	—	—	—	—
6	Self-raising Flour ...	6	—	—	—	—	—
10	Sugar ...	10	—	—	—	—	—
3	Sultanas ...	3	—	—	—	—	—
1	Suet ...	1	—	—	—	—	—
36	Sausage and Polony ...	35	1	—	2·77	1	1
1	Sausage Roll ...	1	—	—	—	—	—
2	Soups ...	2	—	—	—	—	—
1	Seidlitz Powder ...	1	—	—	—	—	—
8	Tea ...	8	—	—	—	—	—
3	Table Jelly ...	3	—	—	—	—	—
2	Tomato Sauce ...	2	—	—	—	—	—
1	Tapioca ...	1	—	—	—	—	—
61	Vinegar ...	55	6	—	9·83	5	4
2	Yeast ...	2	—	—	—	—	—
887		844	43	—	4·84	27	19

Berwick-upon-Tweed.—The following table indicates particulars of samples taken, and results of analyses, etc., during the year. A total of 40 samples were submitted for examination.

Nature of Sample.	No. of Samples taken.	Found Genuine.	Doubtful	Non-Genuine.	Prosecutions.	Convictions.
Milk ...	16	15	—	1	—	—
Butter ...	5	5	—	—	—	—
Mincemeat ...	2	2	—	—	—	—
Cream ...	2	2	—	—	—	—
Vinegar ...	3	3	—	—	—	—
Strawberry Jam ...	1	1	—	—	—	—
Sausage ...	4	3	—	1	—	—
Ice Cream ...	2	2	—	—	—	—
Baking Powder ...	1	1	—	—	—	—
Olive Oil ...	1	1	—	—	—	—
Ice Foam ...	1	1	—	—	—	—
Ground Almonds ...	1	1	—	—	—	—
Condensed Milk ...	1	1	—	—	—	—
	40	38	—	2	—	—

The percentage of non-genuine samples is 5.0.

Public Health (Preservatives, etc., in Food) Regulations, 1925—1927.—Although no samples were taken during the year ended December 31st, 1929, under the above Regulations, all samples that were taken under the Sale of Food and Drugs Acts were tested by the County Analyst for preservatives. In no cases was the quantity found such as to justify proceedings being taken.

In the Borough of Berwick-upon-Tweed the samples of Milk, Cream, Butter, Sausage and Jam were examined for preservatives. No action was taken under the Condensed Milk and the Dried Milk Regulations of 1923.

NORTHUMBERLAND COUNTY COUNCIL.
Number of houses erected in NORTHUMBERLAND during the years 1920—1929 inclusive.
HOUSING, 1929. TABLE A.
Reference: { "A" With State assistance. { "C" by Local Authority.
 { "B" without State assistance. { "D" by other persons.

No.	District.	Erected by:—	1920.		1921.		1922.		1923.		1924.		1925.		1926.		1927.		1928.		1929.		Total.		Houses Permanently Closed 1920—1929.	Net Increase 1920—1929.
			A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.		
1	Berwick M.B. ...	C. D.	—	—	22	1	—	—	24	—	32	—	72	3	26	—	97	—	51	—	—	—	324	7	115	276
2	Blyth M.B. ...	C. D.	—	—	65	1	218	—	220	—	55	—	—	—	50	—	—	—	—	—	132	148	740	201	45	1,019
3	Morpeth M.B. ...	C. D.	—	—	72	—	—	—	—	2	—	—	7	—	38	—	—	—	84	—	—	—	201	2	10	244
4	Wallsend M.B. ...	C. D.	—	—	34	—	144	—	28	—	23	—	120	—	252	—	*48	—	—	*	—	—	849	252	187	1,142
5	Alnwick U.D. ...	C. D.	—	—	12	3	24	—	—	1	—	—	18	—	6	—	23	—	—	—	10	—	117	65	21	178
6	Amble U.D....	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18	61
7	Ashington U.D. ...	C. D.	—	—	—	—	104	—	64	—	128	—	212	—	50	—	48	—	—	—	—	—	394	473	4	933
8	Bedlington U.D. ...	C. D.	—	—	78	7	148	—	47	—	181	—	20	—	58	—	150	—	—	—	50	—	504	384	47	859
9	Cramlington U.D. ...	C. D.	—	—	61	—	181	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	242	11	6	275
10	Earsdon U.D. ...	C. D.	—	—	43	—	114	—	19	—	70	—	100	—	53	—	170	—	14	—	—	—	564	309	3	884
11	Gosforth U.D. ...	C. D.	—	—	—	—	28	—	20	—	18	—	18	—	56	—	46	—	6	—	—	—	192	265	6	802
12	Hexham U.D. ...	C. D.	—	—	—	—	63	—	—	—	6	—	25	—	54	—	28	—	—	—	—	—	176	15	28	236
13	Longbenton U.D. ...	C. D.	—	—	10	—	32	—	—	—	—	—	40	—	56	—	38	—	—	—	—	—	176	79	26	543
14	Newbiggin-by-the-Sea U.D.	C. D.	—	—	90	7	—	—	20	—	20	—	66	—	—	—	—	—	—	—	—	—	196	119	13	307
15	Newburn U.D. ...	C. D.	2	—	105	5	240	—	153	—	—	—	31	—	39	—	46	—	12	—	76	—	704	88	7	837
16	Prudhoe U.D. ...	C. D.	—	—	132	—	—	—	—	—	12	—	—	2	20	—	106	—	4	—	—	—	274	50	10	326
17	Rothbury U.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42
18	Seaton Delaval U.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	202
19	Seghill U.D....	C. D.	—	—	28	—	12	—	—	—	—	—	—	—	—	—	60	—	15	—	—	—	115	65	—	186
20	Weetslade U.D. ...	C. D.	—	—	—	—	100	—	—	—	—	—	—	—	66	—	17	—	—	—	—	—	183	100	10	404
21	Whitley & Monkseaton U.D.	C. D.	12	7	41	10	127	—	4	—	—	—	49	—	92	—	94	—	—	—	—	—	407	549	—	2,119
22	Alnwick R.D. ...	C. D.	—	—	10	—	26	—	—	—	—	—	—	—	24	—	24	—	—	—	12	—	96	88	—	238
23	Belford R.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	146
24	Bellingham R.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	28
25	Castle Ward R.D. ...	C. D.	—	—	24	28	32	—	—	—	8	—	—	—	20	—	—	—	—	—	—	—	84	302	12	735
26	Glendale R.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	123
27	Haltwhistle R.D. ...	C. D.	—	—	—	—	25	—	32	—	—	—	—	—	—	—	—	—	—	—	—	—	57	21	—	97
28	Hexham R.D. ...	C. D.	—	—	4	21	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	98	11	323
29	Morpeth R.D. ...	C. D.	—	—	—	—	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	88	297	8	721
30	Norham & Islandshires R.D.	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	14	—	—	—	24	5	8	37
31	Rothbury R.D. ...	C. D.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33	67
Total of "C."			2	—	831	—	1,710	—	565	—	396	—	567	—	960	97	1,205	48	200	12	280	1	6,716	158	6,874	—
" " "D."			46	108	88	263	51	221	131	720	595	719	938	584	697	520	542	297	453	312	581	309	4,121	4,053	8,174	—
Gross Total			47	108	919	263	1,761	221	696	720	991	719	1,505	584	1,667	617	1,747	345	653	324	861	310	10,837	4,211	15,048	—
			155	—	1,182	—	1,982	—	1,416	—	1,710	—	2,089	—	2,274	—	2,092	—	977	—	1,171	—	15,048	—	14,390	—

* In pursuance of a "reconstruction" scheme.

HOUSING, 1929. TABLE B.

SANITARY DISTRICTS.	No. of Inhabited Houses, 1921 Census.	Erected since 1921 Census.	Total.	Closed or Discontin- ued.	Net Remaining.	1921 CENSUS.		1929.
						Population.	Persons per House.	
MUNICIPAL BOROUGHES.								
1. Berwick-on-Tweed	2,960	391	3,351	115	3,236	12,985	4.38	3.72
2. Blyth ...	6,473	1,057	7,530	45	7,485	31,822	4.91	4.20
3. Morpeth ...	1,592	254	1,846	10	1,836	7,576	4.75	4.03
4. Wallsend ...	8,440	1,320	9,760	187	9,573	42,995	5.09	4.67
URBAN DISTRICTS.								
5. Alnwick ...	1,643	193	1,836	21	1,815	6,988	4.25	3.81
6. Amble ...	1,054	78	1,132	18	1,114	4,851	4.60	3.74
7. Ashington ...	5,436	937	6,373	4	6,369	29,388	5.40	4.53
8. Bedlington...	5,470	906	6,376	47	6,329	26,408	4.82	4.40
9. Cramlington	1,751	281	2,032	6	2,026	8,517	4.86	4.29
10. Earsdon ...	2,268	886	3,154	3	3,151	11,303	4.98	4.14
11. Gosforth ...	3,204	806	4,010	6	4,004	15,717	4.90	4.18
12. Hexham ...	1,896	264	2,160	28	2,132	8,843	4.66	3.97
13. Longbenton	2,758	566	3,324	26	3,298	13,749	4.98	4.27
14. Newbiggin-by-Sea	1,211	316	1,527	13	1,514	6,808	5.62	4.66
15. Newburn ...	3,614	842	4,456	7	4,449	18,830	5.21	4.57
16. Prudhoe ...	1,690	336	2,026	10	2,016	8,924	5.28	4.66
17. Rothbury ...	312	42	354	—	354	1,682	5.39	3.53
18. Seaton Delaval	1,598	180	1,778	5	1,773	7,855	4.91	4.26
19. Seghill ...	396	186	582	—	582	1,949	4.92	4.21
20. Weetslade ...	1,479	414	1,893	10	1,883	6,954	4.70	4.10
21. Whitley and Monkseaton	4,153	1,560	5,713	—	5,713	22,228	5.35	4.16
RURAL DISTRICTS.								
22. Alnwick ...	2,852	238	3,090	—	3,090	14,367	5.03	4.15
23. Belford ...	1,166	151	1,317	12	1,305	5,654	4.84	3.68
24. Bellingham	1,336	30	1,366	6	1,360	5,952	4.45	4.03
25. Castle Ward	2,380	716	3,096	12	3,084	13,137	5.52	4.65
26. Glendale ...	1,975	126	2,101	7	2,094	8,351	4.22	3.35
27. Haltwhistle	2,008	94	2,102	—	2,102	9,751	4.85	4.30
28. Hexham ...	5,137	323	5,460	11	5,449	24,585	4.78	3.95
29. Morpeth ...	3,503	729	4,232	8	4,224	18,093	5.16	4.64
30. Norham & Islands.	1,326	43	1,369	8	1,361	5,996	4.52	3.83
31. Rothbury ...	1,106	88	1,194	33	1,161	5,054	4.56	3.99
						Average 4.955		Average 4.274

RIVERS POLLUTION.

The position in regard to the pollution of rivers and streams by the discharge therein of sewage remains almost the same as at the end of the previous year (1928).

There are, however, indications of the awakening of Local Authorities to their responsibilities in this direction, by the preparation of schemes of sewerage and sewage disposal, the effect of which will be to improve the condition of rivers and water-courses now being polluted.

Schemes of sewerage and sewage disposal have been inaugurated during the year at :—

Bedlington : New sewerage scheme (No. 1)	...	Cost	£23,000
Bedlington : New sewerage scheme (No. 2)	...	Cost	£1,950
Gosforth : New sewerage scheme	...	Cost	£4,000
Longbenton : Extension of sewer	...	Cost	£816
Pegswood : Sewage Disposal Works	...	Cost	£7,500

The scheme at Pegswood is the forerunner of new sewerage works for the whole of the village, which will probably be undertaken during the year 1930.

The schemes at Gosforth and at Longbenton are extensions indirectly of the Seaton Burn Joint Sewer.

HOUSING (1929).

The number of houses erected within the administrative County during the past year was 1,171. This figure, although an increase of nearly 200 on that for 1928, is considerably below the average. i.e., 1,542 for the nine years 1920-1928.

Of the total contribution for the year under review 861 (64 per cent.) were "subsidy" houses, and 281 (31.5 per cent.) were erected by Local Authorities, of whom Blyth Borough (132), Newburn Urban District (76), and Bedlington Urban District (50) were the greatest contributors.

Blyth also heads the list for the erection of the largest number of houses (all types) for the year with 289, followed by Whitley and Monkseaton with 160, Newburn 116, Castle Ward 86, Earsdon 75, Bedlington 61, and Wallsend 57.

The total number of houses erected in the County since 1920 is now 15,048. During the intervening period, however, 658 dwellings have been permanently discontinued as such either as the result of Closing Orders or other cogent reasons, the net gain to the County being 14,390.

The Housing Table is again brought up to date for comparative purposes, and shows the relative activity in each County District.

In the Table, columns "A" show the number of "subsidy" houses, and line "C" shows the number of houses erected by each Local Authority, the totals of which are 10,837 and 6,874 respectively, 97.7 per cent. of the latter being State-aided.

An additional Table "B" has been included on this occasion, designed for the purpose of indicating in comparative form the effect on "overcrowding" of the increase in the number of houses.

In the Census of 1921 issued by the Registrar General the population of the administrative County was given as 407,317, whilst the estimated figure for 1929 by the same authority is 409,800, an increase for the 8 years of 2,483, equal to an annual average increase of 310 persons.

The number of houses required to house 310 persons at the rate of 4.5 per house is 69, so that the surplus of houses over the number required to house the normal increase in population for the eight years is $1,542 - 69 = 1473 \times 8 = 11,784$, amongst which the permanent or standing population is distributed.

Table "B" shows the effect of this distribution. The population *per house* throughout the County in 1921 was 4.95, whilst in 1929 this figure was reduced to 4.27.

In addition to this improvement, it should also be noted that the additional houses erected since 1921 are almost entirely of the 4, 5 and 6 roomed type, as against a preponderating number of 1, 2 and 3 roomed pre-existing houses, a factor that still further enhances the improvement.

ISOLATION HOSPITALS.

The amount of hospital accommodation available for the isolation of infectious disease was as indicated in the subjoined table. The population of the 30 Sanitary Districts for which isolation hospital accommodation was provided was 402,730, and the beds provided numbered 535, independently of the accommodation at port hospitals, giving one bed for each 752 of population. The notable features of the year were :—

The Tyne Port Sanitary Authority's Floating Hospital at Jarrow Slake was dispensed with, and arrangements made for "Port" cases of infectious disease to be admitted into the Walkergate and North and South Shields Infectious Diseases Hospitals.

Newbiggin-by-the-Sea is the only district in the county without means for isolating cases of infectious disease.

	Popula- tion served.	Number and kind of hospitals provided.	Beds provided for		
			Small- pox.	Infectious diseases other than Small-pox	Small-pox or other Infectious diseases.
I. JOINT HOSPITAL DISTRICTS.					
(1) <i>Earsdon Joint Hospital District—</i>					
Earsdon U.D. ...	} 69,671	Iron buildings :—	16	...	...
Seghill U.D. ...		At Earsdon Grange (1)			
Whitley & Monkseaton U.D. ...		Two permanent brick buildings and	...	72	...
Longbenton U.D. ...		† One iron building			
Seaton Delaval U.D. ...		At Scaffold Hill (1)			
Cramlington U.D. ...					
(2) <i>Gosforth, Newburn, and Castle Ward Joint Hospital District—</i>					
Gosforth U.D. ...	} 51,470	Permanent building ...	...	32	...
Newburn U.D. ...					
Castle Ward R.D. ...					
(3) <i>The urban and rural districts of Alnwick and Rothbury and the rural district of Belford—</i>					
Alnwick U.D. ...	} 30,470	Iron and wood building	12	...	...
Alnwick R.D. ...					
Rothbury U.D. ...					
Rothbury R.D. ...					
Belford R.D. ...					
(4) <i>The urban and rural districts of Rothbury—</i>					
Rothbury U.D. ...	} 5,888	do.	...	8	...
Rothbury R.D. ...					
(5) <i>Hexham rural and Prudhoe—</i>					
Hexham R.D. ...	} 30,941	do.	...	12	16
Prudhoe U.D. ...					
(6) <i>Longtown and Border—</i>					
Alston, etc., R.D. ...	} *9,054	do.	...	16	...
Brampton R.D. ...					
Longtown R.D. ...					
Haltwhistle R.D. ...					

† Now used only in cases of emergency.

* In this County.

			Popula- tion served.	Number and kind of hospitals provided.	Beds provided for		
					Small- pox.	Infectious diseases other than Small-pox	Small-pox or other Infectious diseases.
II. HOSPITALS PROVIDED BY INDIVIDUAL SANITARY AUTHORITIES.							
	Berwick M.B. ...	...	11,870	{ One wooden building	8	...	...
	Blyth M.B. ...	...	31,520	{ Iron & wood building	...	30	...
	Morpeth M.B. ...	...	7,416	Permanent building ...	14	...	...
				{ Iron building ...	4	...	...
				{ Brick building ...	...	20	...
	Wallsend M.B. ...	...	44,800	{ Permanent building	20	...	...
				{ do. ...	...	86	...
	Alnwick U.D. ...	...	6,923	Permanent building ...	...	12	...
	Amble U.D. ...	...	4,169	Iron building ...	4	...	...
	Ashington U.D. ...	...	28,890	{ Iron building }	...	45	...
				{ Brick building }	...	...	...
	Bedlingtonshire U.D....	...	27,890	{ One brick building ...	10	...	...
				{ Iron & brick building	...	18	...
	Gosforth U.D....	...	16,770	Permanent building ..	14	...	...
	Hexham U.D. ...	...	8,485	Two iron and wood	8	16	...
				buildings			
	Newburn U.D. ...	...	20,340	One iron and wood	4	...	...
				building			
	Glendale R.D. ...	...	8,033	Two cottages ...	...	...	8
	Morpeth R.D. ...	...	19,620	One iron and wood	24	...	..
				hospital			
	Norham and Island- shires R.D. ...	...	5,208	do. ...	6	...	...
	River Blyth Port Sanit- ary Authority			Permanent building ...	...	20	...
III. SANITARY AUTHORITIES HAVING MADE ARRANGE- MENTS FOR PATIENTS TO BE RECEIVED BY NEIGHBOURING SANIT- ARY AUTHORITIES.							
	Blyth U.D. ...	...	31,520	Patients from this district are received into the hospital of the Blyth Port Sani- tary Authority	...	...	...
	Weetslade U.D. ...	...	7,739	Patients from this dis- trict are received into the Gosforth, Newburn and Castle Ward Joint Hospital	...	...	...
				do. ...	...	...	...
	Bellingham R.D. ...	...	5,484		...	...	...
	Castle Ward R.D. ...	...	14,360	Smallpox cases are re- ceived into the Gos- forth U.D. Smallpox Hospital	...	...	...
	River Tyne Port Sanit- ary Authority			All "Port" cases of infectious disease are received into the Walkergate and North and South Shields Infectious Diseases Hospitals.	...	...	...

VENEREAL DISEASES REGULATIONS.

The treatment centre provided for county patients under the scheme undertaken by the County Council in conjunction with neighbouring authorities is at the Royal Victoria Infirmary, Newcastle. In the following table particulars are given in relation to treatment during 1929 and (for comparison) 1928.

	1928.			1929.		
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
1A. Under treatment or observa- tion at beginning of year...	175	55	230	184	159	243
1B. Returned for treatment after having ceased to attend during the previous year...	25	8	33	31	10	41
2. Dealt with for the first time	270	113	383	511	169	680
3. Ceased to attend before com- pletion of treatment and observation	139	74	213	128	62	190
4. Transferred to other centres	13	1	14	19	2	21
5. Discharged after completion of treatment and observation	134	42	176	135	65	200
6. Under treatment or observa- tion at end of year... ..	184	59	243	229	40	269
7. Total attendances at out- patient clinic	5,651	1,561	7,212	6,188	1,452	7,640
8. Aggregate number of in- patient days	114	871	985	125	561	686

Irrigation stations are open, morning and evening, for gonorrhœa patients independently of the clinics.

The travelling expenses of necessitous patients to and from the clinics, are borne by the County Council.

Opportunity is afforded to medical practitioners in the area for consultations with the Medical Officer at the treatment centre, and they occasionally attend the clinics.

Bacteriological examinations under the scheme are carried out at the Durham University College of Medicine, Newcastle-upon-Tyne. The following statement gives the number and kind of tests undertaken at the laboratory during 1929 and indicates the extent to which medical practitioners availed themselves of the facilities provided by the County Council for such examinations.

Nature of Test.			For Treatment Centre.	For Practitioners.
For detection of spirochaetes	...	...	—	—
For detection of gonococci...	...	...	—	20
For Wassermann reaction ...	...	...	603	305
Other examinations :—				
Gonococcal Complement Fixation Tests			—	10
Ascitic Fluid for Wassermann Test			—	1
C.S. Fluid for Wassermann Test			—	4
Total ... ..	...	...	603	340

Patients who do not complete treatment.

It is to be regretted that the number of out-patients who do not complete their course of treatment, is somewhat high. The following table of percentages indicates the position with regard to this matter :—

	SYPHILIS.		GONORRHOEA.	
	Male.	Female.	Male.	Female.
Total for the treatment Clinic	31%	54%	40%	40%
Northumberland patients ...	28½%	56%	30%	40%

In-patients are included in the above figures, as they attend the out-patients' clinic after their discharge from the Ward.

MATERNITY AND CHILD WELFARE.

*Professional Nursing in the Home.**(a) General.*

The County Council does not undertake nursing service in the home, but makes grants to the County Nursing Association for this purpose. The latter is a voluntary organisation which has for its object the nursing of the sick at home either by daily visits or by the employment of a resident cottage nurse. Whilst the resident system has many advantages, it also has many disadvantages, not the least of which is the absence of satisfactory sleeping accommodation for the nurse. The Association has divided the County into small areas, each managed by a local Committee employing one or more nurses according to requirements. Medical practitioners may call upon the services of the District Nurse should any of their patients who are subscribers to the Association require such attention; non-subscribers may, by arrangement, avail themselves of these services on payment of a special fee. The County Council makes an annual grant of £310 to the general funds of the Association, which money is apportioned to the local areas at the discretion of the Executive Committee, of which the County Medical Officer is a co-opted member.

(b) For Infectious Diseases.

This is not undertaken by the County Nursing Association except in a few instances in the more remote parts of the County where the resident system is in vogue.

Midwives.

The County Council are empowered under Circular 559 of the Ministry of Health to make grants to County Nursing Associations for the training and placing of midwives. For 24 midwives trained and placed within the County Council's area, a grant of £720 was made to the Northumberland County Nursing Association.

The County Council does not employ, nor does it pay any subsidy to practising midwives. The County Nursing Association's staff of District Nurses are all qualified midwives, and act as such or as maternity nurses, as occasion requires.

During the year 236 midwives notified their intention to practice; of these 182 were on the staff of the County Nursing Association, and 54 were practising independently. Of this number 234 were trained and 2 were "bona-fide" midwives. During the year 21 left the County. 932 visits of inspection were made by the inspectors and it was found necessary to report 1 midwife to the Central Midwives Board for breach of the rules. Midwives in the employment of the County Nursing Association are inspected by the Superintendent of that Association, and midwives practising independently are inspected by the Superintendent of Health Visitors. Both officers report direct to the County Medical Officer.

In 4,850 cases the midwife was engaged to attend as a maternity nurse, but in 1,251 of these, owing to the medical attendant not being

Hostel for Unmarried Mothers.

There has been no application under this scheme during the year.

Babies' Hospital.

Babies suffering from infantile diseases are, on the certificate of their own medical attendants, admitted to the Babies' Hospital, West Parade, Newcastle-upon-Tyne. During the year 23 infants received treatment in the Hospital at a cost of £87 13s. 0d.

Ophthalmia Neonatorum.

In the total 6,885 live births, 19 cases of Ophthalmia Neonatorum were notified, all of which were nursed at home. Of the 2,252 cases attended by midwives independently, medical aid was sought in 12 cases on account of inflammation of, or discharge from, the eyes of the infant, a diagnosis of Ophthalmia Neonatorum being made by the medical attendant in 3 cases. There is urgent need for the provision of hospital treatment for cases of Ophthalmia. It is a matter of the greatest difficulty to secure accommodation in the County at the present moment.

Puerperal Fever and Puerperal Pyrexia.

Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, any febrile condition (other than a condition which is required to be notified as Puerperal Fever under the Infectious Disease (Notification) Acts) occurring in a woman within twenty-one days after childbirth or miscarriage, in which a temperature of 100·4 degrees Fahrenheit has been sustained during a period of twenty-four hours, or has recurred during that period, is termed Puerperal Pyrexia; every medical practitioner on first becoming aware that a woman upon whom he has been in professional attendance is suffering from Puerperal Pyrexia must notify the Medical Officer of Health of the district where the patient resides, and such Medical Officer of Health must transmit a copy of this notification to the Medical Officer of Health of the administrative county within which the district is situate, within twenty-four hours after the receipt of the notification.

It is also the duty of the authorities administering the Maternity and Child Welfare Acts, with the approval of the Minister of Health, to make special arrangements for the treatment of these women by provision for consultations with obstetric surgeons, skilled nursing, hospital treatment, bacteriological and serological facilities, etc.

The County Council's panel of Consulting Obstetricians include Professor Ranken Lyle, M.D., Mr. E. Farquhar Murray, M.D., F.R.C.S., and Mr. Harvey Evers, M.B., M.S., F.R.C.S. During the year 59 cases of Puerperal Pyrexia and 8 cases of Puerperal Fever were notified. Specialist services were obtained in 10 cases, 14 women were removed to hospital, 53 were nursed at home, and 5 deaths occurred.

Amongst the 2,252 women who were delivered by midwives, 15 had rises of temperature for which medical assistance was sought; 6 of these were diagnosed as Puerperal Pyrexia, one as Puerperal Fever, and the remainder as minor ailments.

Maternal Mortality.

As a matter of interest, the maternal mortality rates for the last ten years have been extracted. It will be seen that the figures show a tendency to rise rather than to fall. Roughly, between thirty and forty women in this county die every year in the attempt to perform

a natural function. It is well that public attention has at last been focussed upon a matter which does not reflect favourably upon English life and public health administration.

Year.	Puerperal Sepsis.		Other Accidents and Diseases of Pregnancy and Parturition.		Total Deaths.	Rate per 1,000 Births.	Total Births.
	Deaths.	Rate per 1,000 Births.	Deaths.	Rate per 1,000 Births.			
1919	14	1.60	27	3.10	41	4.70	8,723
1920	27	2.43	33	2.96	60	5.39	11,136
1921	14	1.38	32	3.15	46	4.53	10,146
1922	10	1.10	22	2.43	32	3.53	9,063
1923	13	1.42	24	2.62	37	4.04	9,158
1924	6	0.66	18	1.97	24	2.63	9,125
1925	9	1.04	30	3.47	39	4.51	8,634
1926	5	0.60	24	2.88	29	3.48	8,345
1927	12	1.61	15	2.01	27	3.62	7,470
1928	6	0.80	18	2.40	24	3.20	7,486
1929	11	1.60	22	3.20	33	4.80	6,885

In England and Wales the maternal mortality per 1,000 births based on deaths primarily classed to puerperal conditions, during the year 1929, was as follows :—

Puerperal Sepsis	...	...	...	1.80
Other accidents and diseases of pregnancy and parturition	...	...	...	2.53
				<hr/> 4.33 <hr/>

One of the outstanding requirements for this work is the appointment of a whole-time Maternity and Child Welfare Medical Officer, who will correlate the various activities, enquire into maternal deaths, and conduct research into those ante-natal problems which later influence the nutrition and welfare of the infant.

Health Visitors Work.

There are 32 health visitors who also act as school nurses and tuberculosis visitors. Under the Council's scheme the County is divided into 30 districts in each of which there is a resident health visitor who is responsible for all home visiting in that area. One health visitor is wholly employed in a specified area for tuberculosis work whilst another acts as a peripatetic supply and conducts special and urgent enquiries.

Training and Supply of Health Visitors.

Four nurses were, during the year, trained and placed in districts under the County Council's scheme for the training and supply of health visitors. Candidates, who must hold a certificate of three years' training at a recognised hospital school, and the certificate of the Central Midwives Board, are sent to the College of Nursing, London, for a course of special training, a loan of £70 being advanced to them which sum the candidate engages to repay within two years after appointment to the permanent staff. Notwithstanding these facilities, very great difficulty is experienced in obtaining suitable women for this most important work.

The following is a summary of the number of visits paid by the Health Visiting staff under the Maternity and Child Welfare Scheme.

Births registered in Administrative County.	First Visits to Infants.	Re-visits to infants under the age of 1 year.	Visits to Children, age 1—5 yrs.	Ante-Natal Visits.	
				First Visits.	Re-Visits.
3,336	3,137	10,177	26,758	296	107

Population and Number of Births Registered.

The following table shows the population and number of births in areas administered by the County Council for Maternity and Child Welfare purposes.

Population (1921 Census).	Registered Births.		Notified Births.		% Notified.
	Live	...	Live	...	
	3,336		2,216		66·43
	141		51		36·17
219,565	3,477		2,267		65·2

Infant Mortality.

The following shows the comparative rates of infant mortality for the county per 1,000 births :—

Infant Mortality per 1,000 births for county area, for maternity and child welfare.	Infant Mortality per 1,000 births for whole of county including autonomous areas.	Infant Mortality per 1,000 births for England and Wales
62·9	81	74

The death rate for illegitimate children still remains high; of 202 illegitimate babies born, 22 died before they reached the age of one year, giving an infant death rate of 108·9, compared with a death rate of 59·9 per 1,000 infants born in wedlock.

Death Rate of Legitimate and Illegitimate Children during 1929 for Comparison.

No. of legitimate births in Council's area	...	...	...	...	3,134
No. of illegitimate births in Council's area	...	...	...	...	202
Total births					3,336
No. of deaths of legitimate infants	...	188	=	59.98 deaths per 1,000 legitimate births.	
No. of deaths of illegitimate infants	...	22	=	108.91 deaths per 1,000 illegitimate births.	
Total					210
					= 62.95 deaths per 1,000 births.

Infant Welfare Centres.

At the commencement of the year there were 11 centres in the County area: 7 of these belonging to the County Council and 4 supported by voluntary funds and grants. During the year 3 of these voluntary centres were transferred to the County Council. At all the centres a Health Visitor attends each session. The premises used were not generally suitable, but great difficulty is experienced in obtaining satisfactory rooms or buildings where waiting, weighing, and consulting rooms, sanitary accommodation, and shelter for perambulators are available.

The following is a summary of the premises used:—

Church or Chapel rooms	...	...	...	...	6
Institutes, Village Halls	...	...	...	...	2
Premises hired from the local authorities	...	...	...	...	1
Wooden Huts	...	...	...	...	1
Cottages	...	...	...	...	1

TABLE 4.

INFANT WELFARE CENTRES.

Report on the Work for the Year ended December 31st, 1929.

		Amble.	Alnwick.	Berwick.	Backworth.	Morpeth.	Newbiggin.	Stocksfield.	Seaton Delaval.	Whitley Bay.	Prudhoe.	Lynemouth.	Seghill.	TOTALS.
Number of children transferred from 1928 Register to 1929 Register	aged under 1 year	97	29	25	64	32	114	13	45	78	48	32	55	632
	aged 1—5 years	256	25	10	99	9	103	32	28	59	97	8	58	784
Number of children who made their first attendance during 1929	aged under 1 year	73	50	98	129	94	195	42	127	116	128	34	64	1,150
	aged 1—5 years	9	5	...	56	...	22	11	20	30	29	3	16	201
Total attendances made	by mothers	670	539	999	1,849	1,400	3,138	547	1,167	1,920	2,665	584	1,044	16,522
	by children	423	589	816	1,910	1,190	2,941	589	1,138	2,021	2,857	540	1,055	16,069
Number of Ante-Natal mothers attending Centre for advice	1st visits	...	4	...	...	...	60	...	...	8	34	2	10	118
	subsequent visits	...	12	...	...	...	190	...	...	...	129	5	29	365
Number of Sessions each Centre was opened	half-days	51	49	51	26	51	51	34	49	42	49	49	48	550
	whole days	...	...	...	23	...	...	...	...	...	...	...	...	23
Number of attendances made	by Medical Officer	21	22	23	23	46	37	25	11	42	22	...	45	317
	by Health Visitor	51	49	51	49	51	51	34	49	42	47	49	48	571
Number of deaths of infants attending the Welfare Centres	aged under 1 year	...	1	...	4	2	...	3	...	4	1	...	...	15
	aged 1—5 years	...	...	...	2	...	2	...	1	...	3	...	1	9

TABLE 1.

Table shewing numbers of Births and numbers of Deaths under one year in Urban and Rural Districts and number of Deaths of Infants under one year investigated by Health Visitors.

	Alnwick Urban.		Amble Urban.		Berwick-on-Tweed Borough.		Cramlington Urban.		Earsdon Urban.		Morpeth Borough.		Newbiggin Urban.		Prudhoe Urban.		Rothbury Urban.		Seghill Urban.		Weetslade Urban.		Whitley & Monkseaton Urban.		Seaton Delaval Urban.		Alnwick Rural.		Belford Rural.		Bellingham Rural.		Castle Ward Rural.		Glendale Rural.		Haltwhistle Rural.		Hexham Rural.		Morpeth Rural.		Norham & Islandshires Rural.		Rothbury Rural.		TOTAL.		GROSS TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Number of Legitimate Births ...	M. 50	F. 45	M. 30	F. 26	M. 100	F. 107	M. 78	F. 71	M. 129	F. 105	M. 63	F. 61	M. 64	F. 60	M. 92	F. 77	M. 5	F. 8	M. 27	F. 25	M. 79	F. 73	M. 126	F. 143	M. 40	F. 62	M. 75	F. 84	M. 34	F. 24	M. 36	F. 42	M. 105	F. 85	M. 52	F. 54	M. 61	F. 53	M. 140	F. 125	M. 156	F. 146	M. 25	F. 26	M. 30	F. 35	M. 1,597	F. 1,537	3,134																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Number of Illegitimate Births ...	4	3	3	4	9	6	...	3	5	4	3	5	2	3	2	4	2	...	2	1	8	5	4	7	3	1	8	1	...	3	8	4	4	2	11	8	4	7	14	11	8	2	4	4	2	101	101	202																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Total number of Births ...	54	48	33	30	109	113	78	74	134	109	66	66	66	63	94	81	7	8	29	26	87	78	130	150	43	63	83	85	34	27	44	46	109	89	54	65	69	57	147	139	167	154	27	30	34	37	1,698	1,638	3,336																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Deaths of Infants under 1 year } Total ...	5	5	5	4	7	9	7	6	9	7	9	2	3	3	3	8	1	...	3	1	10	1	4	9	2	3	7	4	3	2	2	6	8	6	1	2	4	1	9	4	14	7	1	3	117	93	210																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	1	1	1	...	2	1	1	1	1	1	1	...	1	...	1	1	...	1	1	1	...	2	12	10	22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Infantile Mortality Rates (per 1,000 births) ...	98	103	142	8	72	107	85	5	65	8	83	3	46	5	62	8	66	6	72	7	66	6	46	4	47	1	65	4	81	9	88	8	70	7	25	2	39	6	45	4	65	4	70	1	Nil																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Number of Deaths investigated (Legitimate) ...	5	5	4	3	7	9	7	6	9	7	7	2	3	4	3	7	1	...	2	...	9	1	4	8	3	2	6	4	2	2	1	6	7	7	1	1	3	1	8	2	15	5	1	2	108	84	192																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Number of Deaths investigated (Illegitimate)	1	1	...	2	1	1	1	1	1	1	1	...	1	...	1	1	...	1	1	...	2	11	9	20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Total number of Deaths (under 1 year) investigated ...	5	5	5	3	7	9	7	6	10	7	9	3	3	4	3	8	1	...	3	1	10	1	4	9	4	2	7	4	3	2	2	6	7	8	1	2	4	1	8	2	15	6	1	4	119	93	212																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Causes of Death of Infants under one year in urban & rural districts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Prematurity ...	1	3	3	1	2	3	1	1	5	1	1	2	1	...	2	...	3	1	1	1	2	2	1	1	1	4	...	1	...	1	3	1	2	1	29	25	54																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Congenital debility, Malformations and Injuries at Birth ...	1	...	1	...	1	...	2	2	..	2	2	2	1	1	1	1	1	1	2	2	2	2	1	1	...	2	...	1	1	18	15	33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Congenital Heart Disease...	1	1	2	...	1	1	1	1	6	...	6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Marasmus	1	2	1	1	1	1	3	...	6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Convulsions ...	2	1	2	...	2	1	1	1	...	1	2	2	...	1	10	5	15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Asphyxia Neonatorum	2	1	1	4	...	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Icterus Neonatorum	1	2	1	1	4	...	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Congenital Syphilis	1	1	...	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Respiratory diseases	1	...	1	2	2	...	1	2	2	1	2	...	3	2	...	1	4	1	...	1	1	...	1	2	1	1	1	...	1	4	1	1	2	18	24	42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Whooping Cough ...	1	1	1	1	3	2	1	1	1	2	9	5	14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Enteritis and Diarrhoea	1	1	1	1	1	1	1	4	5	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Stenosis of the Bowel	1	1	1

TABLE 2.

Investigated Cause of Deaths of Infants under one year, and Children aged 1-5 years, with age periods at which death occurred.

[illegible]

TABLE 3.

Investigated Cause of Deaths of Illegitimate Children under the age of one year, arranged in sanitary areas.

	Amble Urban.		Alnwick Urban.		Berwick-on-Tweed Boro. '		Cramlington Urban.		Earsdon Urban.		Morpeth Borough.		Newbiggin Urban.		Prudhoe Urban.		Rothbury Urban.		Seghill Urban.		Weetslade Urban.		Whitley & Monkseaton Urban.		Seaton Delaval Urban.		Alnwick Rural.		Belford Rural.		Bellingham Rural.		Castle Ward Rural.		Glendale Rural.		Haltwhistle Rural.		Hexham Rural.		Morpeth Rural.		Norham & Islandshires. Rural.		Rothbury Rural.		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
Number of Illegitimate Births in the Administrative County	3	4	4	3	9	6	...	3	5	4	3	5	2	3	2	4	2	...	2	1	8	5	4	7	3	1	8	1	...	3	8	4	4	4	2	11	8	4	7	14	2	...	2	4	4	2	101	101
Number of Illegitimate Deaths under 1 year ...	1	1	1	...	2	1	1	1	1	1	1	1	...	1	...	1	...	1	...	1	2	12	10		
Number of Illegitimate Deaths under 1 year investigated	1	1	...	2	1	1	1	1	1	1	1	...	1	...	1	...	1	...	1	...	1	2	11	9		
CAUSE OF DEATH.																																																
Prematurity	1	1	1	1	4	1			
Congenital debility	1	1	1	1			
Congenital Heart	1	1	...			
Convulsions	1	3		
Marasmus	1	...		
Icterus Neonatorum	1	1	...		
Respiratory diseases	1	1	...			
Enteritis	1	1	2		
Septicaemia	1	1		
Uncertified	1	..		
Total	...	1	1	...	2	1	1	1	1	1	1	1	...	1	...	1	...	1	1	...	1	1	...	2	11	9	

ILLEGITIMATE DEATHS NOT INVESTIGATED :
1 M. and 1 F.—Relatives left the County.

Infant Welfare Centres under the control of the County Council.

Name of Centre.	Date and Hour of Session.	Name of Medical Officer of Centre.
Alnwick	...Mondays, 2—4 p.m.	...Dr. Bunting, Asst. County M.O.H.
Berwick	...Tuesdays, 2—4 p.m.	...Dr. MacLagan, M.O.H.
Newbiggin	...Mondays, 2—4 p.m.	...Dr. Jackson, M.O.H.
Prudhoe	...Wednesdays, 2—4 p.m.	...Dr. Gabriel, Asst. County M.O.H.
Seaton Delaval	Thursdays, 2—4 p.m.	...Dr. Anderson, M.O.H., Cramlington.
Amble ...	...Mondays, 2—4 p.m.	...Dr. O'Sullivan, Asst. County M.O.H.
Lynemouth	...Tuesdays, 2—4 p.m.	...
Backworth (Earsdon U.D.)	...Tuesdays, 2—4 p.m. 1st and 3rd Tuesdays open all day.	...Dr. Glen Davidson.
Morpeth	...Mondays, 2—4 p.m.	...Dr. Dickie, M.O.H., Mor- peth Borough.
Seghill ...	...Mondays, 2—4 p.m.	...Dr. Henderson, M.O.H., Seghill.
Stocksfield	...Alternate Wednesdays 2—4 p.m.	...Dr. Ogilvie.

Centres under control of Voluntary Committees.

Whitley Bay	...Mondays, 2—4 p.m.	...Dr. Thompson, Whitley Bay
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Infant Foods.

Ambrosia, Glaxo, Ostermilk and Virol are supplied at cost price to mothers attending the Infant Welfare Centres. The following table shows the quantities of Infant Foods sold and distributed during the year :—

	Sold at full price.	Sold at half price.	Distributed free.
Dried Milk	15,433 lbs.	123 lbs.	2,114 lbs.
Virol	1,388 lbs.	8½ lbs.	15½ lbs.

The following table indicates the cost to the County Council of supplying Infant Foods free and at half price, and also the amount spent by purchasers during the year :—

	Spent by Purchasers.		Cost to County Council.	
	At full price.	At half price.	At half price.	Free.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Dried Milk	1,101 17 10	4 12 3	3 11 2	140 18 2
Virol	138 16 0	0 8 6	0 8 6	1 11 0
Totals	1,240 13 10	5 0 9	3 19 8	142 9 2

BLIND PERSONS ACT, 1920.

The County Council administers the Blind Persons Act directly and without the interpolation of any voluntary agency. This has been found highly satisfactory and to the advantage of everyone concerned. The method enables individual members of the Committee to bring forward cases in which they are interested and of which they have personal knowledge; in other words the same happy results are secured as might be expected from a Care Committee. Considerable progress has been made in advancing the interests of and attending to the welfare of the blind persons living in the County.

The number of blind people on the register on January 1st, 1929, was 313. During the year 56 new cases were placed on the register and 20 died or left the district, leaving 349 persons on the register on December 31st, 1929.

Home Teachers.

The two Home Teachers continued their activities—teaching Braille and Moon characters, reading, knitting, cane-work and other handicrafts. The general social welfare of the blind has been supervised and advice and assistance given where necessary.

The number of visits made by the Home Teachers during the year is set out in the following statement :—

Social welfare purposes	...	...	...	...	1,220
Supervision of home workers	...	...	...	...	328
Assistance in completing pensions forms	...	...	...	...	1
Giving home lessons	...	...	...	...	116
Tracing removals	...	...	...	...	16
Investigation of new cases	...	...	...	...	60
Total visits made during the year	...	...	...	...	1,741

Home Workers.

There are six blind persons approved as home workers by the Ministry of Health; these receive a subsidy from the Ministry in proportion to their earnings. The approval of the Ministry for a home worker is contingent upon such individual being engaged in some occupation for some portion of every working day, irrespective of earning capacity. Under the Local Government Act this approval will be dispensed with and the responsibility placed directly upon Local Authorities for the approval of their home workers.

The home workers are occupied as follows :—

Piano tuning	...	...	...	...	...	2
Basket making	...	...	...	...	...	1
Knitting	...	...	...	...	...	2
Pulp cane work	...	...	...	...	...	1

There are in addition several blind persons who are trained "casual" workers and who, for various reasons, are unable to undertake full time work. Home occupation is essential to these people and brings considerable interest into an otherwise drab life. Material is provided and instruction given in the making of various articles. Payment is made at a uniform rate but no subsidy is given by the Ministry of Health as is done in the case of approved home workers.

The number of articles produced by blind workers during the year was :—

Knitted garments	...	...	...	...	449
Cane, basket and rush goods	...	...	...	...	1,708

Sales of Work.

There were no organised Sales of Work but the goods produced were disposed of at the North East Coast Exhibition. The six Societies interested in the blind population in the north-east area, together with the Royal Victoria School for the Blind, Benwell Dene, Newcastle-upon-Tyne, formulated a joint scheme, pooling their products and selling these at a stall in the Exhibition. Each Society furnished a financial guarantee in proportion to the blind population served in its area, and grants were given by the National Institute for the Blind and the Northern Counties Association for the Blind. Demonstrations of work were given daily by blind people and goods produced by them were displayed for sale. The effort was an unqualified success, the guarantors were not called upon and each Authority received a substantial profit.

Indigent and Unemployable Blind.

The income of indigent and unemployable blind persons is augmented up to a minimum sum of 18/- per week less income from all sources. Any case which in the opinion of the Cases Sub-Committee merits a larger grant is specially considered by the Committee. During the year 148 blind persons were in receipt of such augmentation and the sum of £2,808 15s. 3d. was distributed.

Libraries for the Blind.

Two Libraries continue to serve the County, viz., the Northern Counties Library for the Blind, which is situated at North Shields, and the National Library for the Blind at Manchester. The North Shields Library has 7,000 volumes available and the Manchester Library 176,639. The books are printed in both Braille and Moon characters. Postage is entirely free, being paid by the Libraries. A grant of £35 was paid to each of the above organisations.

Workshops for the Blind.

There are five workmen from the County area employed in the Workshops for the Blind at Breamish Street. The Ministry's annual grant of £30 per worker for augmentation of wages was received. This problem is one of considerable difficulty; blind men and women continue to be trained and there is no outlet for their services on the completion of their training. The question is further complicated by the large amount of unemployment which already exists in the district. The Workshops at Breamish Street are old and out-of-date and are totally unable to grapple with the situation. A joint conference has been held between representatives of Newcastle City, the County Borough of Gateshead, the Northumberland County Council, the Workshops for the Blind and the Royal Victoria School for the Blind. The present Workshops are vested in trustees appointed by the Charity Commissioners. It is proposed to dispose of the present buildings and erect larger and more modern workshops within the grounds of the Royal Victoria School for the Blind at Benwell, the Governors of the School having generously offered a site. It is proposed to reserve accommodation for 20 blind workers from Northumberland. Plans have been drawn and submitted to the Ministry of Health for approval, and they are at the moment of writing under consideration and discussion. The whole problem of employment of the blind is one which ought to receive the consideration of economic experts; it is a national problem and as such ought to be approached. It has many bearings and affects a number of industries which give occupation to sighted employees. Further, there is the spectacle of one Authority competing commercially with another in that same district. Considerable sums of money are being spent in providing

relief in various ways for blind persons: it would appear sounder policy to keep such blind persons who are capable of employment occupied in producing goods for which they will be paid, and to centralise regionally depots for the disposal of the goods. There is happily a movement on foot at the present time towards this end; how far it will be successful remains to be seen.

Wireless Telegraphy (Blind Persons Facilities) Act, 1926.

Section I. of this Act provides that a license to establish, maintain and work a wireless telegraph station for the purpose of receiving messages only, may be granted subject to such terms, conditions and restrictions as the Postmaster-General may think fit, but without payment of any fee, to persons who satisfy the Postmaster-General that they are blind within the meaning of the Act. The blind person must be registered as a blind person and produce a certificate to this effect issued by the County Council. Ten such certificates were issued during the year.

Education.

At the beginning of the year 7 children were receiving elementary education at the Royal Victoria School for the Blind and three were admitted during the course of the year. Two children left having attained the age of 16 years and one was removed by the parent on leaving the County.

There were five adults in the school being trained for some suitable occupation. Eight others were admitted and three left, one for private reasons and two at the completion of training.

With regard to the general organisation of blind welfare, Northumberland was the first County, if not the first Authority, to take over the work of direct administration without the intervention of any voluntary agency; the Council may be congratulated on possessing a very complete and economically worked scheme and one which has served as a model for not a few other Authorities.

The success of this is in no small measure due to the untiring efforts and unflagging zeal of the Superintendent of Health Visitors, Miss Weir. The work is growing and requires much more supervision than she can give to it, but I feel it incumbent upon me to make this acknowledgement of her efforts.